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THIS STUDY WAS DESIGNED TO DESCRIBE THE PSYCHOLOGICAL ENVIRONMENT OF AN URBAN PUBLIC SCHOOL SYSTEM USING THE MURRAY NEEDS-PRESS MODEL. A BROAD MEASURE OF ENVIRONMENTAL PRESS WAS ADAPTED FROM AN EXISTING MODEL AND USED TO--(1) DESCRIBE THE ENVIRONMENTAL PRESS PERCEIVED BY TEACHERS, (2) FACTOR ANALYZE THESE DATA, (3) DESCRIBE THE PERSONALITY (NEEDS) CHARACTERISTICS OF TEACHERS, (4) RELATE THE CHARACTERIZATION OF ENVIRONMENTAL PRESS TO STAFF PERSONALITY CHARACTERISTICS, AND (5) CORRELATE SUCH FACTORS WITH ADMINISTRATIVE PERSONALITY CHARACTERISTICS. A SCHOOL SYSTEM'S ORGANIZATIONAL CLIMATE AND ORGANIZATIONAL CULTURE WERE THUS DESCRIBED. TEACHERS AND ADMINISTRATORS OF 44 ELEMENTARY, JUNIOR HIGH, AND SENIOR HIGH SCHOOLS WERE ADMINISTERED THE INSTRUMENTS. THE FINDINGS INDICATED THAT THE INSTRUMENT WAS EFFECTIVE IN PROVIDING DATA WHICH COULD BE USED TO DESCRIBE THE ORGANIZATIONAL CLIMATE OF THE SCHOOL. (JH)

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ORGANIZATIONAL CLIMATE IN A PUBLIC SCHOOL SYSTEM, FINAL REPORT

by

CARL ROBERT STEINHOFF

ABSTRACT

Syracuse University

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Problem

This study was designed to describe the psychological environment of an urban public school system using the needs-press constructs postulated by H. A. Murray and refined by George G. Stern and his associates. The specific purpose of this project was to adapt a broad measure of environmental press from an existing model and to utilize this instrument with its complementary measure of personality to: (1) describe the environmental press perceived by teachers; (2) factor analyze these data; (3) describe the personality (needs) characteristics of teachers; and (4) relate the characterization of environmental press to staff personality characteristics; (5) correlate such factors with administrative personality characteristics; thus describing this system's Organizational Climate (Item 2) and Organizational Culture (Item 4).

Procedures

The Activities Index and Organizational Climate Index Form 1163 was administered to the teachers and administrators of forty-four elementary, junior high, and senior high schools. Computer programs were utilized to analyze the data. Analysis of variance was used to determine gross scale and factor score differences between individual schools and between levels of the organization. Scheffé's Multiple Comparison Test was used to identify specific schools and levels contributing to the significant F-ratios. An item analysis was accomplished by utilizing the procedure described by Ebel. Estimates of reliability were obtained by use of the Kuder-Richardson Formulas 20 and 21. Homogeneity of variance was determined by Bartlett's Test. A factor analysis of Organizational Climate Index data was accomplished by principal axis-equamax rotation procedures. A similar analysis was made of matched AI-OCI data across schools.

Findings

(1) Organizational Climate Index scale and factor reliabilities were reasonably high and compared favorably to previous analyses of College Characteristics Index data. (2) The item analysis indicated reasonably high degrees of internal item consistency. (3) The evidence indicated the Organizational Climate Index was able to make fine distinctions between levels of the organization and between individual schools, thereby attesting to the validity of the instrument. (4) Personalities of teachers were found to be similar to the adult normative sample published by the Psychological Research Center at Syracuse University for the Activities Index. (5) A factor analysis across individuals yielded six press factors: Supportiveness, Impulse Expression, Organization, Motivation, Intellectuality and Practicalness. (6) The factoral structure of the Organizational Climate Index was essentially similar to that of the College Characteristics Index. (7) A factor analysis of Activities Index and Organizational Climate Index data across schools

yielded three Organizational Cultures: The Conventional Culture, The Work Culture, and The Play Culture. (8) The personalities of building principals appeared to reflect the cultures of the units they were directing thus suggesting a local rather than cosmopolitan disposition. (9) Environments varied to a greater extent than did personalities across levels. (10) Schools within levels that varied in press measures did not vary in relevant needs measures. (11) The broad achievement needs of secondary school teachers were not being satisfied in the organization at the time of the study.

Implications

The values and implications revealed by the findings are as follows: (1) The descriptions of the schools in terms of their ranking by Climate and Culture should provide the system with the opportunity to evaluate the nomothetic role prescription as seen by the participants themselves, (2) the policy of employing individuals from within the organization to leadership positions should be reconsidered, (3) provision must be made to satisfy the broad intellectual and achievement needs of teachers in this school system, and (4) the evidence indicates that the instruments utilized in this study are effective in describing the concomitants of behavior and might be usefully employed in describing psychological environments in a wide variety of institutional settings.

ORGANIZATIONAL CLIMATE IN A PUBLIC SCHOOL SYSTEM

by

CARL ROBERT STEINHOFF
Principal Investigator

Syracuse University
1965

FINAL REPORT

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C.R.S.

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CHAPTER I

ANALYSIS OF THE PROBLEM

Introduction

Current interest in the field of human ecology is being manifested by theoreticians who seek to apply broad formulations of the relationships between person and environment to better understand the behavior of individuals in formal organizations. Recent studies of the psychological environment of institutions of higher education have served this interest and have yielded interesting and valuable data. This study is an attempt to utilize and extend the approach used in the study of college environments to better understand the psychological environment of American public schools.

Statement of the Problem

Broadly stated, this study was designed to describe the psychological environment of an urban public school system using the needs-press constructs postulated by

H. A. Murray (1938) and refined by G. G. Stern (1958) and his associates. More specifically the purpose of this project was to adapt a broad measure of environmental press from an existing model and to utilize this instrument with its complementary measure of personality in a public school setting to:

1) describe the environmental press perceived by teachers;
2) factor analyze these data;
3) describe the personality (needs) characteristics of teachers;
4) relate the characterization of environmental press to staff personality characteristics; and
5) correlate such factors with administrator personality characteristics;

thus describing this system's Organizational Climate (Item 2) and Organizational Culture (Item 4).

Significance of the Problem

The significance of this study for education lies in the establishment of the relationship between individual needs and environmental press in public schools. The establishment of such a relationship would make possible the total objective description of organizational characteristics and their attendant correlation with the formal goals, programs, and explicit objectives of public school systems.

Using the needs-press constructs it would ultimately be possible to compare and contrast the characteristics of different types of educational institutions in an objective manner. It is hoped that eventually it would be possible to extend such comparisons to a variety of formal organizations.

Hypotheses

Because the purpose of the study was essentially descriptive in nature no directional hypotheses were stated. The following hypotheses were tested to objectively describe the difference between schools and levels of organization and thereby establish the mutual relationships between individual need and environmental press at the organizational level:

H_1: Viewing each level of the organization (elementary, junior high, senior high) independently, there will be significant differences in either Organizational Climate Index or Activities Index scale or factor means and variances.

H_2: There will be significant differences in either the Organizational Climate Index or Activities Index scale or factor means and variances between levels: elementary, junior high, senior high.

H_3: Schools at each level (elementary, junior high, senior high) which differ significantly in Organizational Climate Index scale and factor means will also differ significantly in relevant Activities Index scale and factor means.

H_4: It is expected that a factor analysis will produce first and second order relationships similar to those extracted from the analysis of College Characteristics Index data.

Definition of Terms

The Psychological Environment

"The psychological environment may be defined as the complex of stimuli that press upon the individual and to which his behavior constitutes a response. In a sense, these pressures are unique and private insofar as the view that each of us has of the world must be ultimately and inevitably private. As observers, however, we tend to draw conclusions of our own regarding the meaning of the events in which someone else is participating, and we also tend to organize and classify otherwise discrete events on the basis of seemingly common elements" (Stern, 1961, p. 35).

Needs and Press

In the present study needs refer to the organizational tendencies which appear to give unity and direction to personality. Environmental press provides an external situational counterpart to the internalized personality needs (Stern, 1964, p. 165).

Organizational Climate

Organizational Climate refers to the specific environmental press of an organization. Organizational Climate is to the organization what personality is to the individual (Halpin and Croft, 1963).

Organizational Culture

In this study the phrase Organizational Culture refers to the dynamic interaction of organizational climate and individual personality needs which results in individual behavior in an organizational context. Operationally it refers to joint needs-press factors represented by components from both personality and environment.

Role

Role refers to a set of expectations applied to an incumbent of a particular position.

Position

Position is defined as the location of a person or persons in a system of organizational and social relationships.

Expectations

An expectation is an evaluative standard applied to an incumbent of a particular position.

Assumptions

This study is predicated on the following assumptions: 1) behavior is a function of the interaction of person (organism) and environment; 2) the needs-press constructs adequately define the parameters of this interaction; 3) the Activities Index and Organizational Climate Index are efficient measures of needs and environmental press; and 4) the public schools in the sample urban system are representative public schools and are similar in nature to schools in other urban systems of the same size.

Procedures

Population

The teachers and building principals of 43 schools, all belonging to a single urban system, participated in this study. The number of scorable answer sheets was

75 per cent of those administered. A total of 33 matched AI/OCI responses were returned by the building principals out of a possible 41 (2 schools did not complete AI's as requested).

Procedures

During the spring and fall of 1963 contact was made with the superintendent of schools of the system sampled in order to seek cooperation for this study. Meetings with the superintendent's staff and building administrators were arranged to explain the nature of the study and to ask for their assistance. The building principals agreed to distribute information describing the study to their respective staffs and to seek their voluntary cooperation.

The self-administering inventories, the Activities Index and Organizational Climate Index, were distributed to teachers and administrators via the internal mail system of the organization. Appropriate detailed instructions accompanied all test materials. The anonymous returns were placed in a manila folder located centrally in each building and at the end of one week, the time period allowed for completing the questionnaire, the building secretaries sealed the envelope and mailed them to the investigator.

Analysis of Data

The Organizational Climate Index answer sheets were machine scored and the results were summarized on punched cards. The Activities Index answer sheets were hand-scored and summarized in the same manner. Various computer programs were utilized to analyze the data.

Analysis of variance was used to determine differences between schools and Scheffé's (1953) Multiple Comparison Test employed in order to isolate the individual levels and schools responsible for the significant F-ratios. A factor analysis of Organizational Climate Index data was accomplished by principal axis-equamax rotation procedures. An item analysis was undertaken by the procedure described by Ebel (1954). Estimates of reliability were obtained by use of Kuder-Richardson Formulas 20 and 21. Bartlett's Test for Homogeneity of Variance was also utilized.

Limitations

In the present study we have defined environment and personality in terms of what the tests utilized actually measure. It should be carefully noted that there are other schemes for classifying either environment or personality which equal the descriptive power of the Syracuse Indices but none, as far as can be determined, measure both parameters in "common terms and comparable magnitudes," which accounts for the selection of the tests utilized. This does not mean that in future assessment studies that the use of separate measures should be precluded. We merely have tried to present one novel way of doing things.

The sample represents one single system and therefore generalizations to other outwardly similar systems should be highly qualified. The organizational culture described may or may not be unique. It remains a question that can only be answered by future research.

Factor analysis in the final stages is an intuitive process, the foundation of which lies in wisdom and experience. Since this was the first encounter the investigator had with this procedure, the reader should view the structure of the factors extracted from the raw data as highly tentative.

CHAPTER II

REVIEW OF THE LITERATURE

The present study incorporates ideas drawn mainly from the research on college environments done by George Stern. Since the emphasis is upon the measurement of the psychological variables associated with behavior in formal organizations an examination is made of previous attempts to conceptualize organizational behavior. Organizational Climate is defined in terms of a theoretical model which makes measurement of the psychological environment possible.

Organizational Behavior

Current Research

The relationship between man and environment has long been considered an important and fruitful area of research by theorists who concerned themselves with human behavior in formal organizations. Recent observers have contended that the state of organizational theory development has reached the conceptual stage, which pays particular attention to the functional relationships and interdependencies inside the organization and its circumscribing social environment (Davis & Iannacone, 1959).

Lonsdale (1964) has noted that organizational purposes are generally conceptualized in terms of task achievement or needs satisfaction with but little attention devoted to integrated global models which conceptualize behavior as a function of the interaction of task achievement and needs satisfaction. Those models which so conceptualize the interaction of task achievement and needs satisfaction, such as the ones formulated by Bakke (1953), Guba and Bidwell (1957), Stogdill (1959), and McGregor (1960), have provided interesting insights into the nature of organizational behavior but have failed to define both parameters in broad, complementary, measurable terms.

The formulations of Allport (1955), Argyris (1957), Getzel and Guba (1958), Schutz (1958) and Halpin and Croft (1963) on the other hand have been more successful in expanding the dimensions of task achievement and needs satisfaction into general measures of environment and organism. This was especially significant because the generally accepted definition of behavior is expressed in terms of the mediated transaction between organism and environment (Sells, 1963). However, the criterion problem of how to objectively evaluate the encounter of organism and environment and to evolve a more satisfactory and systematic total conceptualization of the whole environment (Sells, 1963), in common terms and comparable magnitudes, was not fully solved by the writers mentioned above.

Organizational Climate

The term organizational climate has been used as a general one referring to particular specifications of organizational environment. Halpin and Croft (1963) refer to climate as the personality of the organization. Lonsdale (1964) refers to climate as a global index of task-achievement and needs-satisfaction integration. A recent survey of 104 studies of organizations showing the variety of manipulation of both personal and environmental variables leads Forehand and Gilmer (1964) to define organizational climate as ". . . the set of characteristics that describe an organization and that (a) distinguish the organization from other organizations, (b) are relatively enduring over time, and (c) influence the behavior of people in the organization."

Forehand and Gilmer point out that methods for observing climate variation include field studies, assessments of particular perceptions, observations of objective indices, and experimental control of organizational variables. However, no comprehensive system for representing both organism and environment "in common terms and comparable magnitudes" (Stern, 1964) appears in the literature except for the needs-press model developed by H. A. Murray (1938).

Murray has presented a taxonomy for classifying both the environmental pressures and the characteristic ways in which an individual strives to structure the environment for himself. The external pressures were called press, their internal complements needs.

Need

Murray (1938, p. 124) originally defined need as ". . . a construct . . . which stands for a force . . . in the brain region . . . which organize perception, apperception, intellection, conation and action in such a way as to transform in a certain direction an existing, unsatisfying situation." Stern (1964) made note of two major characteristics of the needs construct discussed by Murray:

1. Needs are functional in character, representing the goals or purposes which an interaction serves for an individual. They are . . . a taxonomy of the objectives which individuals characteristically strive to achieve for themselves (and)
2. (Needs are) . . . revealed in the modes of behavior employed by the individual.

Press

According to Stern (1964), press ". . . provides an external situational counterpart ot the internalized personality needs. Press may be defined like needs as a taxonomy of the interaction process manifested by an aggregate of individuals. Like needs, too, press may be inferred from self-estimates of behavior likely to be characteristic of others in a given situation. The necessity for imbedding the judgments within the context of a specified situation is what distinguishes press items from need items."

Several distinctions of press must be made at this point. The stated, formal, explicit objectives representing the purpose of an organization as seen in official pronouncements or by an independent observer outside the organization are termed the alpha press. The private, idiosyncratic, percept of the environment by an individual is termed the private beta press. The shared common interpretation of the environment by participants in a common situation are deemed the consensual beta press (Murray, 1938; Stern, Stein & Bloom, 1956).

It has been demonstrated by Stern (1964, p. 167) that the needs-press constructs can be cast as a measure of organism and environment. These constructs provide the vehicle to objectively evaluate the transactional relationship between man and organization. For the purpose of this study organizational climate will refer to the consensual beta press of a given organizational unit. The composite of this consensual beta press and the aggregate needs of the participants will be used here to designate the organizational culture.

Organizational Culture

If culture can be defined as the characteristic features of a group, or, the behavior typical of a given group, then the needs-press constructs can objectively describe what can be termed organizational culture. Since the integrated or transactional relationship between needs and press provides the organic context of behavior, the common representation of both parameters should denote a particular behavioral milieu or culture. Thus we see that the general behavioral manifestations of students in the elite liberal arts colleges described by Stern (1963a, 1965) differ greatly from that exhibited by typical students enrolled in university-affiliated colleges of business administration.

The problems of a conflicted organization culture are described by Argyris (1957, 1958, 1959). "A lack of congruence between personality and environment," he states, "results in (1) absenteeism and turnover, (2) upward mobility, (3) defensiveness, daydreaming, agressiveness, grievances, and feelings of lack of self worth, (4) apathy and lack of ego involvement in organizational goals, (5) formation of informal groups, (6) emphasis on money and material rewards rather than self-growth and creativity, and (7) acceptance of the above ways of behaving outside the organization."

One should be careful to note, however, that congruence _per se_ is not the _sine qua non_ of an organizational Shangri-la. Stern (1962a) has asked, "But what _is_ an optimal environment--one that satisfies, or one that stimulates? While it may be true that pearls come from aggravated oysters, you can only get milk from contented cows. Pearls and milk each have their uses, and people will continue to exercise their preferences for one or for the other, but it would be a pointless exercise of freedom to insist on milking oysters."

The Syracuse Indexes

The Activities Index is a multi-dimensional inventory for measuring personality needs developed for use in the Chicago studies of student personality assessment (Stern, Stein, & Bloom, 1956) (see Appendix A). A parallel instrument, the College Characteristics Index, was developed as a complement to the Activities Index for measuring academic press. The format for both instruments is the same, each containing 30 ten-item scales corresponding to the taxonomy adapted from Murray by Stern (1958).

Other instruments devised to measure academic environments include the Evening College Characteristics Index and the High School Characteristics Index.

The initial form of the Organizational Climate Index was generalized from its academically-oriented predecessors for use in a variety of formal educational and industrial organizations as a common measure of environmental press. The present Form 1163 is the second revision of the instrument (see Appendix C).

Stern's studies of the college environment using the Syracuse Indexes have yielded the following conclusions regarding the characteristics of the instruments which are relevant to the present study (Stern, 1964, p. 166):

1. Percepts of institutional environment are not a function of the personality characteristics of the participant. Correlations between need and press scales are uniformly low (McFee, 1961; Stern, 1962b), and only begin to approach significant positive values in the case of items describing events totally unknown to the respondent (McFee, 1961). In other words, press are a function of needs only in the case of unstructured, ambiguous percepts. Factors extracted from a composite matrix of need and press scale score inter-correlations are also independent and specific to the particular source from which they were derived (Saunders, undated):

2. Percepts of the environment by experienced participants are consensual. Press scales have substantially lower variances than need scales, indicating that respondents from the same institution are more alike in their

separate perceptions of the institution than in their separate perceptions of themselves (Stern, 1962a, 1963b):

3. The consensual percept of the environment reflects the objective environment. The indirect evidence for this assertion is based on the fact that there are highly significant differences between institutions on all press factors (Saunders, undated). More to the point, however, are the obvious parallels between profiles of press scores and the types of institutions from which they have been obtained (Stern, 1960a, 1962a, 1963a, 1963b, 1965). There are also significant differences between different types of units within the same institution (Stern, 1960b, 1962b), but not between different types of participants, such as students and faculty, with equal experience in the same institution (Pace and Stern, 1958). However, participants who differ in the extent of their experience differ also in the content of their perceptions; college freshman tested prior to admission respond in terms of a generalized myth that is independent of the particular college to which they have been admitted (Stern, 1961);

4. The collective needs of selected groups of persons reflect their objective personality characteristics. The evidence here is based on highly significant differences between student bodies on needs factor scores (Saunders, undated), as well as on the apparent correspondence between needs score profiles and the types of student bodies from which they have been obtained (Stern, 1960a, 1962a, 1963a, 1963b, 1965).

CHAPTER III

PROCEDURES AND TECHNIQUES

Research Population

The teachers and administrators of all 44 elementary, junior high, and senior high schools were involved in this descriptive study of an urban public school system. Of the 44 schools in this city system 2 did not submit Activities Index responses, through a misunderstanding, and one school did not participate at all, leaving 41 schools with data available (see Appendix A for summary data by school).

After carefully screening the completed answer sheets it was found that 75 per cent of the OCI responses and 76 per cent of the AI responses were properly completed and suitable for further analysis. A total of 34 principals' AI responses were submitted out of the possible 41 usable schools.

Procedures

The Organizational Climate Index was adapted from the College Characteristics Index by Professor George G. Stern and Carl R. Steinhoff during the winter and spring of 1962 (Appendix B). The first form of the OCI, Form 662, was administered by the investigator to a sample of high school teachers. An item analysis of the data led to further revision of the instrument resulting in the present Form 1163 (see Appendix C). The revised form was used in a study by Stern and Cohen to evaluate the 1963-1964 programs of Peace Corps training institutions as well as in the present study.

During the spring and fall of 1963 contact was made with the superintendent of schools of the system sampled in order to seek cooperation for this study. After consultation with the superintendent, assistant superintendent, and system research director, a series of meetings were held with the elementary and secondary school building principals. The study was explained in detail and the investigator extended a plea for their assistance. The building principals agreed to distribute information describing the study to their respective staffs and to seek their voluntary cooperation. The response was excellent.

Each school was allowed to determine when it would participate, within a two-month time interval. The self-administering inventories, the Activities Index and the Organizational Climate Index, were distributed to the schools via the internal mail system of the organization. Appropriate detailed instructions accompanied all test materials.

The anonymous returns were placed in a manila folder located in the teachers' room. At the end of one week, the time period allowed for completing the questionnaire, the building secretaries sealed the envelope and mailed them to the investigator.

Analysis of Data

The Organizational Climate Index answer sheets were machined-scored and the results summarized on punched cards by National Computer Systems, Minneapolis, Minnesota. The Activities Index answer sheets were hand-scored and likewise summarized on punched cards.

Various computer programs written by Roger Cohen of the Syracuse University Psychological Research Center were utilized to analyze the data. Analysis of variance was used to determine gross scale and factor score differences between individual schools and between levels of the organization. Scheffé's (1953) Multiple Comparison Test was used to identify specific schools and levels contributing to the significant F-ratios. A factor analysis of Organizational Climate Index data across individuals was accomplished by principal axis-equamax rotation procedures. A similar analysis was made of matched AI-OCI data across schools. An item analysis was accomplished by utilizing the procedure described by Ebel (1954). Estimates of reliability were obtained by use of the Kuder-Richardson Formulas 20 and 21. Homogeneity of variance was determined by Bartlett's Test.

CHAPTER IV

PSYCHOMETRIC CHARACTERISTICS OF THE AI, CCI, AND OCI

The Activities Index and the Organizational Climate Index each consist of 300 items distributed among 30 scales of 10 items each. The AI scales parallel those of the OCI, those of the former corresponding to behavioral manifestations of personality needs, those of the latter to environmental press conditions likely to facilitate or impede their express (Stern, 1963, p. 1). The needs-press variables and their definitions are listed below:

Scale Definitions

1. Abasement - Assurance: self-depreciation versus self-confidence
2. Achievement: striving for success through personal effort
3. Adaptability - Defensiveness: acceptance of criticism versus resistance to suggestion
4. Affiliation - Rejection: friendliness versus unfriendliness
5. Aggression - Blame Avoidance: hostility versus disorganization

6. Change - Sameness: flexibility versus routine
7. Conjunctivity - Disjunctivity: planfulness versus disorganization
8. Counteraction - Inferiority Avoidance: restriving after failure versus withdrawal
9. Deference - Restiveness: respect for authority versus rebelliousness
10. Dominance - Tolerance: ascendance versus forbearance
11. Ego Achievement: striving for power through social action
12. Emotionality - Placidity: expressiveness versus restraint
13. Energy - Passivity: effort versus inertia
14. Exhibitionism - Inferiority Avoidance: attention-seeking versus shyness
15. Fantasied Achievement: daydreams of extraordinary public recognition
16. Harm Avoidance - Risktaking: fearfulness versus thrill-seeking
17. Humanities - Social Sciences: interests in the Humanities and the Social Sciences
18. Impulsiveness - Deliberation: impetuousness versus reflection
19. Narcissism: vanity
20. Nurturance - Rejection: helping others versus indifference
21. Objectivity - Projectivity: detachment versus superstition (AI) or suspicion (EI)
22. Order - Disorder: compulsive organization of details versus carelessness

23. Play - Work: pleasure-seeking versus purposefulness
24. Practicalness - Impracticalness: interest in practical activities versus indifference
25. Reflectiveness: introspective contemplation
26. Science: interest in the Natural Sciences
27. Sensuality - Puritanism: interest in sensory and esthetic experiences
28. Sexuality - Prudishness: heterosexual interests versus their inhibition
29. Supplication - Autonomy: dependency versus self-reliance
30. Understanding: intellectuality

AI-OCI Scale Characteristics

Table 1 summarizes the basic scale data gathered in this study. No Ebel or KR-20 is reported for the AI, as the item data were not recorded for that instrument in the present study.

The means and sigmas are quite similar for both the AI and OCI. It should be carefully noted that their similarities are restricted to the shapes of the distributions for these scales. Studies by McFee (1959), Stern (1961) and Saunders (undated) of the AI and OCI have conclusively shown that there is no relationship between the

Table 1

Activities Index and Organizational Climate Index Scale Characteristics

Scale	AI Form 1158 OCI Form 1163[a]						
	M		σ		Reliability		Item Index
	AI	OCI	AI	OCI	AI[b]	OCI[c]	OCI[d]
Abasement	3.78	2.74	1.93	1.86	.42	.65	.45
Achievement	5.43	6.73	2.36	2.84	.62	.64	.44
Adaptiveness	5.42	6.37	2.31	2.09	.60	.63	.52
Affiliation-Rejection	6.41	6.79	2.53	1.79	.72	.69	.42
Agression-Blameavoidance	2.34	1.74	1.62	1.81	.37	.71	.42
Change-Sameness	4.31	4.68	2.09	1.89	.50	.53	.47
Conjunctivity-Disjunctivity	6.55	7.87	2.55	2.49	.73	.87	.59
Counteraction-Infavoidance	5.98	6.17	2.45	2.04	.67	.59	.50
Deference	7.38	5.89	2.69	1.61	.82	.48	.39
Dominance	4.37	2.85	2.17	1.81	.55	.63	.42
Ego Achievement	4.46	6.37	2.17	1.74	.55	.51	.43
Emotionality	3.39	5.26	1.85	1.83	.39	.49	.45
Energy-Passivity	5.86	6.75	2.44	2.03	.66	.70	.52
Exhibitionism	2.47	5.71	1.66	1.99	.39	.62	.49
Fantasied Achievement	2.27	4.05	1.56	2.00	.33	.60	.49
Harmavoidance	7.33	7.73	2.67	1.44	.81	.45	.34
Humanities-Social Sciences	7.33	7.20	2.71	2.16	.82	.76	.50
Impulsion-Deliberation	4.89	4.44	2.23	1.97	.55	.57	.48
Narcissism	4.38	6.32	2.07	1.68	.48	.61	.41
Nurturance-Rejection	6.82	7.99	2.59	1.89	.76	.68	.44
Objectivity	8.51	8.41	2.92	2.02	.95	.81	.46
Order	5.71	5.29	2.37	1.73	.64	.57	.42
Play	4.78	3.61	2.19	1.46	.54	.48	.35
Practicalness-Impracticalness	5.74	6.10	2.43	1.29	.66	.23	.31
Reflectiveness	5.54	6.27	2.36	2.41	.62	.74	.59
Science	4.99	6.04	2.24	2.53	.57	.77	.63
Sensuality-Puritanism	3.78	6.15	1.96	1.74	.44	.55	.42
Sex	4.00	2.95	2.00	1.52	.45	.57	.31
Supplication-Autonomy	6.31	6.53	2.50	1.55	.70	.55	.36
Understanding	6.43	6.08	2.56	2.04	.73	.66	.50
Mean	5.23	5.70	2.27	1.91	.60	.61	.45

[a] Based on 934 AI, 931 OCI from teachers in 41 and 43 schools, respectively.

[b] Kuder-Richardson Formula No. 21.

[c] Kuder-Richardson Formula No. 20.

[d] Average Ebel Item Discrimination Index per scale.

needs preferences a student records for himself and the press characteristics he attributes to the environment. Although these investigations could not be replicated in the present study (respondents were assured anonymity and therefore AI and OCI responses could not be matched) there is enough similarity between the CCI and OCI to warrant the assumption that the same independence characterizes the relationship between the OCI and the AI.

The mean item discrimination for the 300 items of the OCI is .45. This is somewhat lower than expected but is nevertheless indicative of a high level of internal scale consistency. See Appendix D for the complete analysis by individual items.

The Kuder-Richardson reliabilities indicated for the OCI seem reasonably high. The KR-21 of .60 for the AI compares favorably with the previously reported KR-20 analysis of .69 (Stern, 1962, p. 33), KR-21, of course, being even more of an underestimate of the true reliability than KR-20.

Factor Structure--AI

As previously stated the needs scales of the AI and the press scales of the environmental indexes are uncorrelated and independent of one another. However, there are important interscale relationships within each instrument.

Stern reports twelve first-order personality factors and four second-order personality factors which describe the total structure of the Activities Index. The definitions and structure are listed below:

I. Intellectual Orientation

This dimension consists of five factors. Two of these involve, as might be expected, intellectual interests and achievement motivation. Two others are concerned with the maintainance of a high level of intellectual and social aggressiveness, suggesting that intellectuality is partially a function of ego strength. The last of these five factors is based primarily on items reflecting an interest in the development of useful, applied skills.

Factor 1. Self-Assertion. This factor reflects a need to achieve personal power and socio-political recognition. It is based on items which emphasize political action, directing or controlling other people, and the acceptance of roles involving considerable group attention. Score Sum: Ego Achievement, Dominance, Exhibitionism, Fantasied Achievement.

Factor 2. Audacity - Timidity. The second factor is more personally than socially oriented. The emphasis here is on aggressiveness in both physical activities and in interpersonal relationships. It is of interest that this personal aggressiveness should also be associated with a high level of interest in science. Score Sum: Risktaking, Fantasied Achievement, Aggression, Science.

Factor 3. Intellectual Interests. The factors with the highest loadings in this dimension are based on items involving various forms of intellectual activities. These include interests in the arts as well as the sciences, both abstract and empirical. Score Sum: Reflectiveness, Humanities-Social Sciences, Understanding, Science.

Factor 4. Motivation. This factor, like 1 and 2 above, represents another form in which need achievement may be expressed. Here, however, are the more conventional forms of striving most recognizable among students, involving elements of competitiveness and perseverance as well as intellectual aspiration. Score Sum: Achievement, Counteraction, Understanding, Energy.

Factor 5. Applied Interests. A high score on this factor suggests an interest in achieving success in concrete, tangible, socially acceptable activities. The items involve orderly and conventional applications in business and science. Score Sum: Practicalness, Science, Order.

II. Dependency Needs

This dimension is based on seven factors. It starts with the orderly aspects of Applied Interests, carries these to a more explicitly compulsive level of personal organization, and then shades off into submissiveness. This in turn, when shorn of its more self-abasive qualities, becomes reconstituted in the last factor of this dimension as emotional closeness. A high score suggests a generally high level of dependent, submissive, socially-controlled behavior. A low score represents the inverse of this: autonomy, ascendance, and non-conformity.

Factor 5. Applied Interests. See Area I above.

Factor -11. Constraint - Expressiveness. This is the inverse of Factor 11 in area III below. Moderately high scores are likely to be associated with high levels of inhibition, defensiveness and rigidity.

Factor -12. Diffidence - Egoism. Reversed scores on Factor 12 (see area III below) reflect a lack of preoccupation with the self as a source of gratification. This implies good contact and reality testing, although very high scores may perhaps be associated with a tenuous, underdeveloped ego structure and a vague or obscurely defined self-concept.

Factor 6. Orderliness. People with high scores on this factor have indicated a marked interest in activities stressing personal organization and deliberativeness. Although some of the items are concerned with long range planning and relatively high level time perspective, the major emphasis here is on the maintenance of ritual and routine and the avoidance of impulsive behavior. Score Sum: Conjunctivity, Sameness, Order, Deliberation.

Factor 7. Submissiveness. The preceding factor suggests a strong defensive system, based on rigid internal controls, for guarding against the expression of impulses. The submissiveness factor also implies a high level of control, but one which is based on social conformity and other-directedness. The items emphasize humility, deference, getting along with others, keeping in one's place, etc. It is of interest that the nurturance scale items should appear in this context, suggesting that the submissive individual's interest in supportive activities is based to a considerable extent on his own unexpressed need for such help. Score Sum: Adaptability, Abasement, Nurturance, Deference.

Factor -2. Timidity - Audacity. This is the inverse of Factor 2 described previously under Intellectual Orientation. In its reversed form it suggests a concern with any risk of danger to the self, whether physical, psychological, or social. These people avoid sports, social activities, and even fantasies which might conceivably incur harm or blame.

Factor 8. Closeness. This factor is closely related to Factor 7, with which it shares both the Nurturance and Deference scales. However, the abasiveness and self-denying qualities implicit in Factor 7 are absent here. In their place is an acceptance of items which recognize one's needs for warmth and emotional supportiveness. Score Sum: Supplication, Sexuality, Nurturance, Deference.

III. Emotional Expression

This dimension shares the closeness factor with the preceeding area, but the remaining five factors with loadings on this dimension stress much higher levels of social participation and emotional spontaneity. The last one of this group, Self-Assertion, is shared with the intellectual area, thus bringing the circle to a close.

Factor 8. Closeness. See area II above.

Factor 9. Sensuousness. The thirty items associated with this factor are concerned with activity of a sensual character. The items suggest a measure of self-indulgence along with a delight in the gratifications which may be obtained through the senses. Score Sum: Sensuality, Narcissism, Sexuality.

Factor 10. Friendliness. Persons with high scores on this factor are indicating an interest in playful, friendly relationships with other people. These interests involve simple and uncomplicated forms of amusement enjoyed in a group setting. Score Sum: Affiliation, Play.

Factor 12. Egoism - Diffidence. This factor reflects an extreme preoccupation with self. The items are concerned with appearance and comfort, as well as with fantasies in which the self obtains unusually high levels of gratification. The responses to other in this group suggests that reality itself is interpreted in egocentric terms, but this may be not so much a matter of autistic distortion as of narcissistic egoism. Score Sum: Narcissism, Fantasied Achievement, Projectivity.

Factor 1. Self Assertion. See area I above.

IV. Educability

There is a fourth dimension to be extracted in the second-order space of considerably less magnitude than the preceding three. It is of intrinsic interest to the educator, however, insofar as it combines elements of both intellectuality and submissiveness. It excludes the more self-assertive aspects of Intellectual Orientation on the one hand, and the most self-denying, inhibited aspects of Dependency Needs. Insofar as scores on this dimension reflect a strong interest in intellectual activities, coupled with orderliness and conformity, it seems likely that this factor is specifically associated with academic achievement. A score for this dimension may be obtained by summing the values for Factors (3) Intellectual Interests, (4) Motivation, (5) Applied Interests, (6) Orderliness, and (7) Submissiveness (Stern, 1963, pp. 13-18).

Factor Structure--CCI

The prototype of the OCI was of course the College Characteristics Index. Eleven factors associated with characteristics of college press have been extracted. These factors were refactored and a two-factor second-order structure identified. The definitions and structure are listed below to aid in describing the subsequent analysis of the Organizational Climate Index:

I. Intellectual Climate

> Eight of the eleven CCI factors covary together to define the over-all dimensions of the intellectual climate. Among them are represented the more conventional aspects of the academic program, including (a) staff and facilities, (b) standards of achievement set by students as well as faculty, and (c) opportunities for the development of self assurance. In addition to these three, the intellectual climate is also marked, as we shall see below, by (d) noncustodial student personnel practices and (e) an absence of vocationalism.
>
> Factor -10. Work - Play. This is an inversion of Factor 10 (see area II below). It reflects an absence of activities associated with dating, athletics, and other forms of collegiate play or amusement.
>
> Factor -11. Non-Vocational Climate. This factor is also an inversion (see area II below). In its reversed form the items reflect opportunities to engage in theoretical, artistic, and other

"impractical" activities. Other items imply an absence of expectation, coercion, or demands for student conformity to conventional values.

Factor 1. Aspiration Level. A high score on this factor indicates that the college encourages students to set high standards for themselves in a variety of ways. These include opportunities for students to participate in decision-making processes involving the administration of the school, and administrative receptivity to change and innovation, thus implying that a student's efforts to make some impact on his environment have some probability of being successful. But a high level of aspiration is also encouraged by introducing students to individuals and ideas likely to serve as models of intellectual and professional achievement. Score Sum: Counteraction, Change, Fantasied Achievement, Understanding.

Factor 2. Intellectual Climate. All of the various items contributing to this factor reflect the qualities of staff and plant specifically devoted to scholarly activities in the humanities, arts, and social sciences. Score Sum: Reflectiveness, Humanities-Social Sciences, Sensuality, Understanding, Fantasied Achievement.

Factor 3. Student Dignity. This factor is associated with institutional attempts to preserve student freedom and maximize personal responsibility. Schools with high scores on this factor tend to regulate student conduct by means other than legislative codes or administrative fiat. There is a minimum of coercion and students are generally treated with the same level of respect accorded any mature adult. Score Sum: Objectivity, Assurance, Tolerance.

Factor 4. Academic Climate. This factor stresses academic excellence in staff and facilities in the conventional areas of the natural sciences, social sciences, and the humanities. Score Sum: Humanities-Social Sciences, Science.

Factor 5. Academic Achievement. Schools high in this factor set high standards of achievement for their students. Course work, examinations, honors, and similar devices are employed for this purpose. Score Sum: Achievement, Energy, Understanding, Counteraction, Conjunctivity.

Factor 6. Self-Expression. This last one of the factors in this area is concerned with opportunities offered to the student for the development of leadership potential and self assurance. Among the activities serving this purpose are public discussions and debates, projects, student drama and musical activities, and other forms of participation in highly visible activities. Score Sum: Ego Achievement, Emotionality, Exhibitionism, Energy.

II. Non-Intellectual Climate

This area shares the Self-Expression factor with the preceeding one. The highest loadings, however, are connected with three factors involving a high level of organization of student affairs, both academic and social. The remaining two factors are associated with student play and an emphasis on technical and vocational courses.

Factor 7. Group Life. The four scales on this factor are concerned with various forms of mutually supportive group activities among the student body. These activities are of a warm, friendly character, more or less typifying adolescent togetherness, but the items also reflect a more serious side to this culture as represented in activities devoted to the welfare of fellow students and less fortunate members of the community. Score Sum: Affiliation, Supplication, Nurturance, Adaptability.

Factor 8. Academic Organization. The various components of this factor may be regarded as the environmental counterparts for orderliness and submissiveness in the individual. High scores on this factor are achieved by institutions which stress a high degree of organization and structure in the academic environment. Score Sum: Blame Avoidance, Order, Conjunctivity, Deliberation, Deference, Narcissism.

Factor 9. Social Form. In some respects this factor represents the formal institutionalization of those activities represented in Factor 7 (Group Life). There is in fact considerable overlap between these two factors, but Factor 9 minimizes the friendly aspects of Factor 7 while stressing its welfare components. Schools characterized by this factor also offers opportunities for the development of social skills of a formal nature and in some respects suggest the finishing school counterpart of the vocational climate represented in Factor 11 below. Score Sum: Narcissism, Nurturance, Adaptability, Dominance, Play.

Factor 10. Work - Play. Schools high in this factor offer opportunities for participation in a form of collegiate life reminiscent of the popular culture of the 1920's. These are the institutions sometimes referred to as the fountains of knowledge where students gather to drink. Score Sum: Sexuality, Risktaking, Play, Impulsiveness.

Factor 11. Vocational Climate. The last of the non-intellectual factors is also shared with the Intellectual Climate area. The items of Factor 11 emphasize practical, applied activities, the rejection of esthetic experience, and a high level of orderliness and conformity in the student's relations to the faculty, his peers, and his studies. Score Sum: Practicalness, Puritanism, Deference, Order, Adaptiveness (from Stern, 1963, pp. 18-21).

Factor Structure--OCI

A factor analysis of OCI data was undertaken to determine the interscale relationships of the instrument. The scale responses of 931 individuals were intercorrelated (Table 2) and the resulting matrix was factored by a principal axis solution (Table 3). Six principal axis factors had eigenvalues approaching the value of unity or greater, and were submitted to an equamax rotational analysis devised by David Saunders and modified by Roger Cohen, Syracuse University Psychological Research Center, for the Syracuse University IBM 7074. The definition and structure of these factors (Table 4) are listed below.

1. Supportiveness

The first factor extracted in this analysis deals with aspects of the organizational environment which reward, satisfy or support self-assured but dependent teachers. It would appear that this factor might be considered a measure of democratic paternalism.

Table 2

OCI Scale Intercorrelations
(N = 931 Individuals)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1[a]		-338	-218	-428	310	-135	-449	-426	-045	476	-269	-259	-291	-221	-129
2	-338		417	346	-379	231	486	356	219	-211	324	221	611	316	247
3	-218	417		409	-281	208	533	315	299	-112	317	175	443	411	314
4	-428	346	409		-280	258	484	409	082	-341	367	348	379	507	356
5	310	-379	-281	-280		052	-548	-074	-455	471	-118	092	-312	-104	006
6	-135	231	208	258	052		110	280	-078	018	287	320	281	355	378
7	-449	486	533	484	-548	110		308	386	-384	257	145	489	300	131
8	-426	356	315	409	-074	280	308		-046	-175	417	386	425	346	298
9	-045	219	299	082	-455	-078	386	-046		-148	-015	-103	197	063	-049
10	476	-211	-112	-341	471	018	-384	-175	-148		-134	-048	-208	-093	009
11	-269	324	317	367	-118	287	257	417	-015	-134		368	371	423	383
12	-259	221	175	348	092	320	145	386	-103	-048	368		267	353	362
13	-291	611	443	379	-312	281	489	425	197	-208	371	267		375	280
14	-221	316	411	507	-104	355	300	346	063	-093	423	353	375		452
15	-129	247	314	356	006	378	131	298	-049	009	383	362	280	452	
16	-281	263	380	303	-397	-006	508	204	256	-247	147	076	271	177	010
17	-297	453	382	446	-380	264	430	365	209	-249	471	263	477	443	394
18	-142	078	031	274	212	371	-030	276	-180	004	219	342	163	310	245
19	-045	246	388	204	-258	052	342	136	277	044	216	064	250	258	156
20	-397	443	428	484	-432	174	506	407	262	-305	451	266	467	398	265
21	-643	470	399	567	-540	177	608	475	242	-541	364	243	464	386	202
22	133	139	330	016	-218	-061	333	-018	308	122	024	-069	184	090	-009
23	050	-184	-074	164	317	144	-171	026	-225	157	016	165	-180	211	134
24	-026	116	211	208	-142	015	152	098	122	-012	117	084	174	191	118
25	-306	448	439	488	-262	366	432	440	092	-194	530	414	511	504	485
26	-257	453	452	461	-299	348	456	374	172	-201	467	300	480	488	469
27	-287	329	318	474	-301	275	411	297	137	-220	355	295	381	429	287
28	082	-052	048	057	355	188	-175	122	-244	263	130	207	-006	197	245
29	-408	400	374	557	-374	176	483	286	152	-321	286	290	376	342	231
30	-360	497	432	492	-326	323	494	436	134	-268	463	340	493	453	452

Table 2--Continued

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	-281	-297	-142	-045	-397	-643	133	050	-026	-306	-257	-287	082	-408	-360
2	263	453	078	246	443	470	139	-184	116	448	453	329	-052	400	497
3	380	382	031	388	428	399	330	-074	211	439	452	318	048	374	432
4	303	446	274	204	484	567	016	164	208	488	461	474	057	557	492
5	-397	-380	212	-258	-432	-540	-218	317	-142	-262	-299	-301	355	-374	-326
6	-006	264	371	052	174	177	-061	144	015	366	348	275	188	176	323
7	508	430	-030	342	506	608	333	-171	152	432	456	411	-175	483	494
8	204	365	276	136	407	475	-018	026	098	440	374	297	122	286	436
9	256	209	-180	277	262	242	308	-225	122	092	172	137	-244	152	134
10	-247	-249	004	044	-305	-541	122	157	-012	-194	-201	-220	263	-321	-268
11	147	471	219	216	451	364	024	016	117	530	467	355	130	286	463
12	076	263	342	064	266	243	-069	165	084	414	300	295	207	290	340
13	271	477	163	250	467	464	184	-180	174	511	480	381	-006	376	493
14	177	443	310	258	398	386	090	211	191	504	488	429	197	342	453
15	010	394	245	156	265	202	-009	134	118	485	469	287	245	231	452
16		329	-032	307	397	433	215	-156	112	259	284	281	-230	335	260
17	329		136	332	541	510	115	-115	143	681	667	541	009	354	654
18	-032	136		-098	116	137	-245	236	027	219	175	221	244	134	196
19	307	332	-098		338	238	376	-070	174	317	284	191	-040	225	276
20	397	541	116	338		572	154	-082	239	494	458	452	-051	460	503
21	433	510	137	238	572		025	-139	151	459	429	445	-176	526	514
22	215	115	-245	376	154	025		-127	139	095	141	076	-115	116	092
23	-156	-115	236	-070	-082	-139	-127		007	016	-026	020	358	-016	-047
24	112	143	027	174	239	151	139	007		143	182	176	-000	173	148
25	259	681	219	317	494	459	095	016	143		691	511	134	410	730
26	284	667	175	284	458	429	141	-026	182	691		490	042	344	667
27	281	541	221	191	452	445	076	020	176	511	490		045	354	482
28	-230	009	244	-040	-051	-176	-115	358	-000	134	042	045		-045	052
29	335	354	134	225	460	526	116	-016	173	410	344	354	-045		417
30	260	654	196	276	503	514	092	-047	148	730	667	482	052	417	

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[a] The scales in this and the following tables are in the same sequence as they appear in the list of scale definitions on pages 28 to 30.

Table 3

OCI Principal Axis Factor Analysis

Scale	Factor						
	1	2	3	4	5	6	
1	-542	074	568	-109	-173	073	
2	655	-129	-009	-245	255	119	
3	631	-108	336	155	224	-065	
4	706	135	-177	355	-116	-042	
5	-502	626	103	040	231	000	
6	381	470	041	-164	072	-041	
7	710	-390	000	140	120	-132	
8	578	253	-180	-024	414	075	
9	273	-545	256	043	-117	-005	
10	-407	329	596	022	178	016	
11	591	280	042	-163	032	044	
12	436	469	-092	071	205	053	
13	683	-035	084	-218	306	205	
14	621	338	159	196	-116	-039	
15	482	460	198	-134	-144	-009	
16	482	-392	000	231	105	-190	
17	754	023	109	-269	-270	-060	
18	236	577	-215	090	061	115	
19	412	-212	507	145	081	-151	
20	732	-119	-010	091	-008	095	
21	761	-214	-360	094	030	-005	
22	185	-371	618	145	208	-097	
23	-073	540	018	537	-190	-249	
24	256	-046	231	352	-182	801	
25	779	224	131	-206	-136	-087	
26	747	125	183	-229	-224	-046	
27	645	091	-003	029	-309	-008	
28	-005	629	195	137	082	-090	
29	632	-087	-157	299	053	-006	
30	780	118	045	-226	-136	-056	
Eigenvalue	9.557	3.428	2.010	1.269	1.018	.918	
Per Cent of Variance	.31	.11	.08	.04	.03	.03	Total .60

Table 4

Equamax Rotation, Organizational Climate Index, 6 Factor Solution

Variable	Factor Loadings						COM
	1	2	3	4	5	6	
1	-722	-038	063	037	-373	-051	669
2	227	-195	221	-278	582	176	585
3	159	097	609	-196	326	224	600
4	567	340	159	-287	147	351	689
5	-507	508	-292	245	041	-216	709
6	-032	333	-053	-386	371	023	402
7	535	-142	521	-183	257	175	708
8	269	236	043	-112	671	126	608
9	143	-385	476	-105	-117	183	453
10	-720	291	169	140	-061	-087	622
11	106	174	060	-456	417	180	460
12	129	442	-052	-181	444	154	469
13	130	-116	246	-273	650	265	659
14	178	430	223	-433	170	309	579
15	-069	333	035	-567	233	173	522
16	473	-098	485	-034	096	083	486
17	233	-071	195	-735	224	204	730
18	086	489	-298	-132	288	157	460
19	-003	013	683	-185	064	135	523
20	404	-018	286	-308	296	374	568
21	714	-082	146	-232	335	246	764
22	-168	-127	758	041	020	084	628
23	056	760	-038	004	-317	014	683
24	-109	-030	051	073	-009	948	921
25	188	144	197	-704	344	181	742
26	154	036	219	-723	255	224	711
27	327	112	117	-536	074	310	521
28	-259	615	-039	-101	094	-025	467
29	541	134	252	-120	220	297	525
30	264	036	167	-665	347	188	697

	Scale	Factor Loading
Assurance	- self-confidence	.722
Tolerance	- forebearance	.720
Objectivity	- detachment	.714
Affiliation	- friendliness	.567
Supplication	- dependency on others	.514
Blame Avoidance	- inhibition of hostility	.507
Harm Avoidance	- fearfulness	.473
Nurturance	- helping others	.404

2. Impulse Expression

The scales listed below combine to form a measure of social aggressiveness. Schools high in this factor evidently offer no impediment to the social preoccupations of teachers and present them with the opportunity for impulsive self-expression, even though it might take the form of personal indulgence or be challenging to the formal organization.

	Scale	Factor Loading
Play	- pleasure seeking	.760
Sexuality	- heterosexual interests	.615
Aggression	- hostility	.508
Impulsiveness	- impetuousness	.489
Emotionality	- expressiveness	.442
Exhibitionism	- attention-seeking	.430
Restiveness	- rebelliousness	.385

3. Organization

The components of this factor are concerned with the press for organizational order, structure, and respect for authority. Conformity and concern with maintaining a proper image also characterize schools high in this factor.

Scale		Factor Loading
Order	- organization of details	.758
Narcissism	- vanity	.683
Adaptability	- acceptance of criticism	.609
Conjunctivity	- planfulness	.521
Harm Avoidance	- fearfulness	.485
Deference	- respect for authority	.476

4. Intellectuality

The scales contributing to this factor deal with the aspects of an environment concerned with intellectual activities and individual achievement.

Scale		Factor Loading
Humanities, Social Science	- activities in the humanities and social sciences	.735
Science	- activities in natural sciences	.723
Reflectiveness	- introspective contemplation	.704
Understanding	- intellectuality	.665

Fantasied Achievement	- daydreams of extraordinary public recognition	.567
Sensuality	- sensory and esthetic experiences	.536
Exhibitionism	- attention seeking	.433
Ego-Achievement	- striving for power through social action	.456
Change	- flexibility	.386

5. Motivation

The factor describes the extent to which a school is characterized by a press towards achievement. Schools high in this factor stress hard work, a total commitment to day-to-day activities, and perseverance.

Scale		Factor Loading
Counteraction	- restriving after failure	.671
Energy	- effort	.650
Achievement	- striving for success through personal effort	.582
Emotionality	- expressiveness	.444
Ego Achievement	- striving for power though social action	.417
Assurance	- self confidence	.373
Change	- flexibility	.371
Understanding	- intellectuality	.347

6. Practicalness

A school high in this factor would be characterized by a practical and friendly environment.

Scale	Factor Loading
Practicalness - practical activities	.948
Nurturance - helping others	.374
Affiliation - friendliness	.351

A comparison of the factors extracted in the present study with those described by Stern for the CCI seem to indicate that there is considerable similarity between the two analyses. OCI factors one through five have their counterparts among eight of the CCI factors (see Table 5). OCI Factor 6 appears to be an original one, however.

It should also be noted that an as yet unpublished factor analysis of the Peace Corps OCI data by Stern and Cohen extracted essentially the same first five factors that emerged in the present study. As Stern predicted (Stern, 1963, p. 13), the environmental factors concerned with intellectual aspects of these organization accounted for less variance than did the college studies, while more variance was associated with those aspects of the environment concerned with dependency.

Table 5

Comparison of Factors--OCI-CCI

OCI	CCI
1	3,7
2	10
3	8
4	2
5	1,5,6
6	--

Factor Reliability--OCI

The reliabilities for each OCI factor were computed using both Kuder-Richardson formulas. The results are listed in Table 6. These compare favorably with the factor reliabilities reported for the AI and CCI (see Table 7).

Limitations

After the present study was completed, it was found that items 11 and 270 had been miskeyed. An error of this kind would theoretically have the effect of lowering the reliabilities of the scales involved and thus reducing their loadings in the factor analysis. In a reanalysis of Peace Corps OCI data, it was found that the factor structure did not change when the corrections were made. With this in mind, the investigator felt that the time and expense of reevaluating the entire project was not justified; however, the reader should view the mean item scale discriminations and reliabilities of scales 11 and 30 as conservative estimates, and should view the factor structure in the perspective the situation demands.

Table 6

OCI Factor Reliabilities

Factor	KR-20	KR-21
1. Supportiveness	.99	.87
2. Impulse Expression	.85	.67
3. Organization	.86	.78
4. Intellectuality	.90	.84
5. Motivation	.91	.82
6. Practicalness	.74	.56

Table 7

AI-CCI KR-20 Reliabilities

Factor	AI	CCI
1	.89	.77
2	.94	.90
3	.90	1.00
4	.83	.82
5	.87	.88
6	1.00	.81
7	.82	.80
8	.84	.95
9	.81	.86
10	.82	.92
11	.79	.90
12	.88	--

Summary

This chapter described in detail the characteristics of the instruments used in the present study. The items of the OCI discriminate reasonably well and the scale and factor reliabilities also seem reasonably high. The hypotheses that the factor analysis of the OCI data would yield factors parallel to those of the College Characteristics Index was essentially substantiated.

CHAPTER V

TEACHER PERSONALITY CHARACTERISTICS

Activities Index (Appendix E) scale, factor, and area means were computed for males and females at each level of the organization and their raw score means were converted to standard scores. These data were subjected to an analysis of variance and a multiple comparison of means analysis described by Scheffé (1953). Polar profiles were drawn to more efficiently describe the characteristics of these teachers.

Males

Male teacher means and sigmas by school levels may be found in Table 8. These have been converted to Standard Scores using adult norms for the Activities Index (see Appendix F), and plotted in profile form to facilitate inspection (Figs. 1-3).

When compared to a normative sample of adult males the male school teacher appears to be quite similar to the average male. His interests seem to be slightly

Table 8

AI Data--Male Teachers

Scale	Elementary School (N=26)			Junior High School (N=88)			Senior High School (N=105)		
	M	σ	Standard[a] Score	M	σ	Standard[a] Score	M	σ	Standard[a] Score
1	3.8462	2.0323	.0977	3.6250	1.8544	-.1320	3.8381	1.8980	.0893
2	5.8077	2.5271	-.6025	5.5909	2.4571	-.7809	6.2095	2.4715	-.2719
3	5.3846	2.1852	-.3740	5.6136	2.2127	-.1673	5.0952	2.1225	-.6352
4	6.1538	2.9443	-.3273	6.2955	2.6162	-.2216	6.3333	2.7626	-.1933
5	2.8077	2.4654	-.5858	3.5114	2.1266	.0798	4.3238	2.4162	.8483
6	5.1154	2.0815	.3049	4.2386	2.3645	-.5546	4.6571	2.3657	-.1444
7	6.1154	2.0815	-.6241	6.2727	2.3824	-.4866	6.6190	2.2055	-.1838
8	6.0000	1.8811	-.9832	6.2614	2.1976	-.7304	6.3238	2.1314	-.6700
9	6.8846	2.5012	-.5080	7.0682	1.7568	-.3278	6.8952	2.1063	-.4976
10	5.2308	2.5315	-.5248	6.1932	2.0218	.2716	6.2952	2.1555	.3560
11	4.6923	2.8658	-.3101	5.8977	2.5228	.5415	6.2952	2.4724	.8414
12	3.4231	1.5974	.7347	3.0682	2.0659	.3225	3.4000	2.0312	.7079
13	6.8462	2.0511	-.3239	6.3182	1.9630	-.9275	6.4571	1.7459	-.7687
14	3.6154	2.7186	.1392	3.3636	2.3893	-.0616	4.1810	2.5515	.5902
15	2.9615	2.0659	-.6907	3.3864	2.1921	-.3503	4.0857	2.6154	.2099
16	5.8462	2.3647	.5188	5.9091	2.2595	.5707	5.7333	2.4310	.4256
17	7.3462	2.7448	.8152	6.9091	2.4009	.4808	7.1905	2.3708	.6993
18	5.3462	1.9002	.9238	4.7045	1.8535	.1985	4.9333	2.0155	.4571
19	3.5385	2.0235	-.3272	3.9886	2.0970	.0615	4.0095	2.1269	.0795
20	6.8846	2.5165	.5840	6.5682	2.1416	.3384	6.1714	2.3440	.0304
21	8.8077	1.4941	-.2060	8.5682	1.6152	-.5732	8.2381	1.9249	-1.0793
22	4.9615	2.7101	-.5410	5.4318	2.7295	-.2382	4.9524	3.0028	-.5469
23	4.5000	2.4059	.3010	4.3636	2.1008	.1773	4.9810	2.2844	.7370
24	6.3077	2.3166	-.9169	6.9545	2.2407	-.2898	6.6000	2.1717	-.6335
25	6.2692	2.5200	.1069	6.0455	2.0830	-.0830	5.7905	2.2326	-.2995
26	6.7308	3.2053	-.1020	6.2955	2.9778	-.4020	5.8952	2.9662	-.6779
27	3.9615	1.6980	.0942	4.1364	1.6180	.2811	3.8952	1.8409	.0234
28	3.0769	1.8381	-.4239	3.4773	2.0168	-.0963	3.8286	2.6778	.1911
29	6.0000	2.0381	.2601	6.1364	1.9953	.3902	6.0476	1.9291	.3055
30	7.1923	2.5872	-.0850	6.9432	2.2881	-.2973	7.2190	2.2886	-.0622

Table 8--Continued

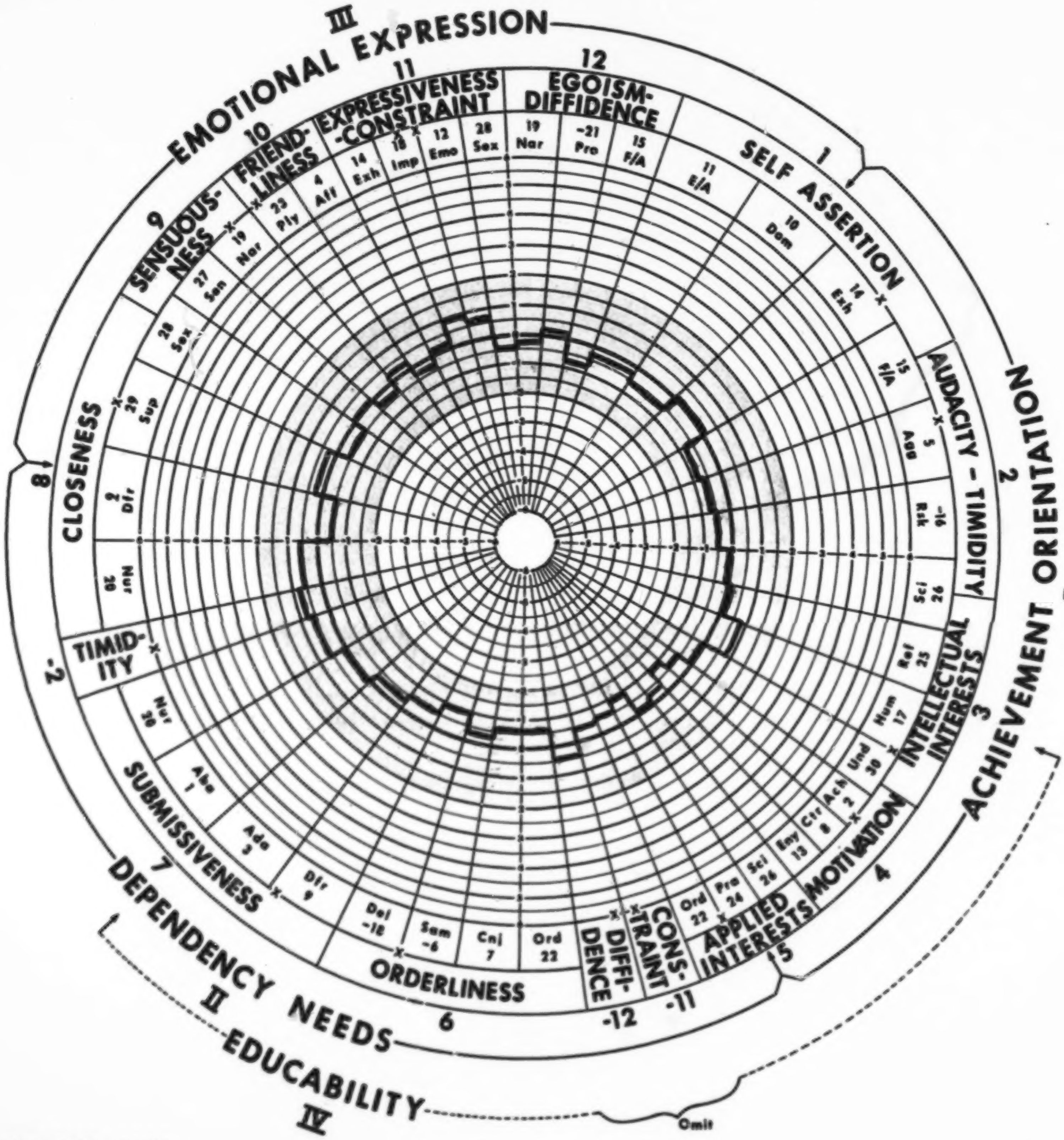
	Elementary School (N=26)			Junior High School (N=88)			Senior High School (N=105)		
	M	σ	Standard[a] Score	M	σ	Standard[a] Score	M	σ	Standard[a] Score
Factor									
1	16.5000	8.9281	-.4470	18.8409	6.6262	.1498	20.8571	7.4826	.6638
2	16.6538	6.9666	-.6977	17.2841	5.6788	-.5029	18.5714	6.3093	-.1052
3	27.5385	9.2038	.2470	26.1932	7.4831	-.0942	26.0952	7.5725	-.1191
4	25.8462	6.6604	-.6479	25.1136	6.7478	-.8706	26.2095	6.4301	-.5375
5	18.0000	5.5331	-.6427	18.6818	5.6700	-.4161	17.4476	6.2090	-.8262
6	20.6154	6.4634	-.8407	22.7614	5.9352	-.1680	21.9810	6.6676	-.4127
7	23.0000	6.6795	-.0275	22.8750	5.2847	-.0678	22.0000	5.6821	-.3499
8	22.8462	6.0808	-.0033	23.2500	5.1814	.1251	22.9429	5.4210	.0274
9	10.5769	4.0494	-.3050	11.6023	3.8716	.0817	11.7333	5.0488	.1311
10	10.6538	4.5653	-.0550	10.6591	3.7534	-.0522	11.3143	4.0949	.2858
11	15.4615	5.0171	.3796	14.6136	5.9571	.0886	16.3429	6.7849	.6822
12	7.6923	3.6561	-.4719	8.8068	4.1666	.0034	9.8571	5.0321	.4513
Area									
1	104.5385	29.2709	-.5181	106.1136	23.9993	-.4032	109.1810	25.0439	-.1795
2	154.6538	24.7448	-.2368	156.8636	18.5302	-.0235	149.6000	24.0082	-.7247
3	83.7308	22.3083	-.2066	87.7727	21.0787	.1050	93.0476	25.0426	.5117
4	115.0000	22.9414	-.4739	115.6250	22.0971	-.4234	113.7333	23.5729	-.5764

---

[a] All standard scores based on male adult normative sample (see Appendix F). These scores have a mean of 0 and a standard deviation of 2.

ACTIVITIES INDEX
DIAGNOSTIC SUMMARY
FORM 1158

NAME Elementary School Males N = 26 CODE Fig. 1
DATE



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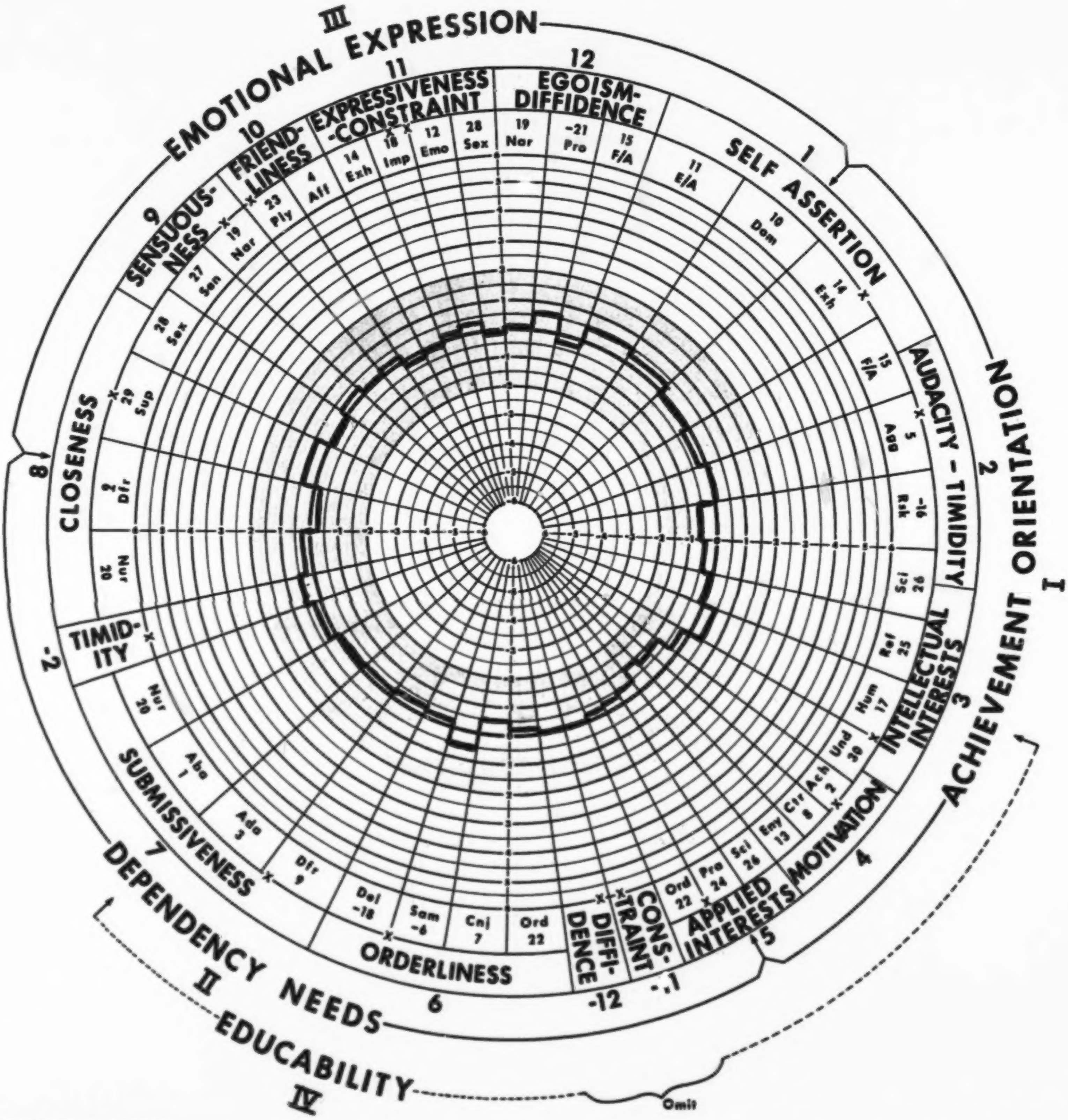
ACTIVITIES INDEX
DIAGNOSTIC SUMMARY
FORM 1158

NAME Junior High School Males **CODE** Fig. 2
N = 88 **DATE**



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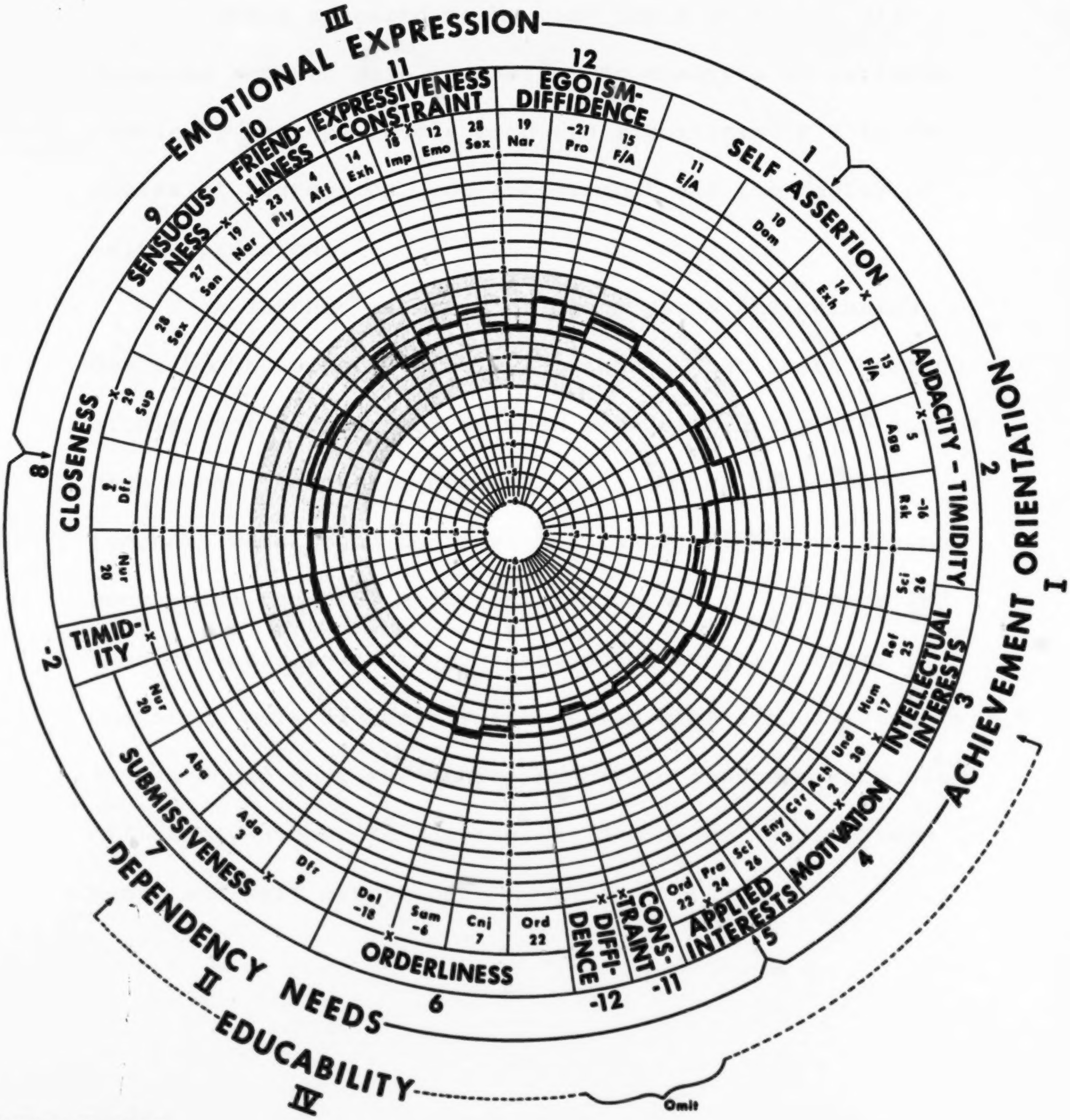
DIAGNOSTIC SUMMARY
FORM 1158

NAME Senior High School Males **CODE** Fig. 3
N = 105 **DATE**



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less applied, and he is somewhat less motivated than the male norm, but there is really no marked deviation from the normative mean.

There appeared to be very few significant differences between male teachers. An analysis of variance (Table 9) between levels produced significant F's in the scales of aggression, ego achievement and the factor of self-expression.

A further analysis of means using the technique described by Scheffé (Table 10) showed that there were no significant differences between male elementary and junior high school teachers; however, male junior high school teachers were found to be significantly higher in dependency needs than the male senior high school teachers and significantly lower in aggression and exhibitionism. Comparing male elementary and senior high school teachers it was found that the senior high male teachers were significantly higher in aggression, dominance, ego achievement, and self assertion.

Table 9

AI Bartlett's and F-Ratio Between Levels--Male Teachers

Scale	Bartlett's	F-Ratio
1	.09	.33
2	.01	1.50
3	.05	1.36
4	.17	.04
5	.48	5.70**
6	.18	1.63
7	.25	.82
8	.24	.24
9	1.64	.19
10	.57	2.58
11	.25	4.11*
12	.65	.74
13	.49	.79
14	.22	2.57
15	1.07	3.30
16	.14	.14
17	.26	.47
18	.18	1.13
19	.03	.55
20	.36	1.32
21	1.12	1.47
22	.27	.72
23	.27	1.90
24	.06	1.08
25	.42	.62
26	.07	.96
27	.43	.46
28	2.72	1.25
29	.05	.07
30	.19	.35
Factor		
1	1.07	4.25*
2	.55	1.56
3	1.98	.37
4	.06	.66
5	.27	1.03
6	.35	1.18
7	.62	.69
8	.28	.10
9	1.90	.69
10	1.74	.72
11	1.06	1.80
12	1.51	2.81
Area		
1	.44	.54
2	1.88	2.63
3	.77	2.22
4	.11	.16

$^{*}p < .05.$

$^{**}p < .01.$

Table 10

AI Scheffé Between Levels--Male Teachers

Scale	Elementary-Junior High	Elementary-Senior High	Junior High-Senior High
1	.52	.02	- .77
2	.39	- .74	-1.72
3	- .47	.61	1.64
4	- .23	- .30	- .10
5	-1.36	-2.98***	-2.42*
6	1.67	.89	-1.23
7	- .31	-1.01	-1.05
8	- .55	- .69	- .20
9	- .40	- .02	.59
10	-1.99	-2.24*	- .33
11	-2.11	-2.86**	-1.07
12	.79	.05	-1.14
13	1.25	.94	- .51
14	.45	-1.02	-2.24*
15	- .79	-2.13	-2.01
16	- .12	.22	.51
17	.80	.29	- .80
18	1.47	.97	- .81
19	- .95	-1.02	- .07
20	.62	1.41	1.19
21	- .61	1.47	1.29
22	- .73	.01	1.15
23	.27	- .98	-1.90
24	-1.30	- .60	1.10
25	.45	.98	.79
26	.65	1.26	.92
27	- .45	.17	.95
28	- .76	-1.46	-1.03
29	- .31	- .11	.31
30	- .48	- .05	- .82
Factor			
1	-1.42	-2.69**	-1.89
2	- .46	-1.41	-1.44
3	.77	.84	.09
4	.49	- .25	-1.14
5	- .51	.42	1.43
6	-1.50	- .97	.84
7	.10	.80	1.06
8	- .33	- .08	.39
9	-1.01	-1.16	- .20
10	- .01	- .74	-1.12
11	.60	- .63	-1.90
12	-1.09	-2.16*	-1.59
Area			
1	- .28	- .84	- .84
2	- .45	1.03	2.26*
3	- .78	-1.82	-1.56
4	- .12	.25	.57

$^{*}p < .10$.
$^{**}p < .05$.
$^{***}p < .01$.

Females

Female teacher means and sigmas by school levels may be found in Table 11. These data, too, have been converted to Standard Scores using the norms described above and plotted in profile form to facilitate inspection (Figs. 4-6).

These female teachers appear to be quite similar in nature to the women in the general adult normative sample. There is some suggestion, however, that she is slightly more submissive but also more highly motivated than the average woman.

The female teachers were not as homogeneous a group as the males. F-ratios (Table 12) indicated that there was quite a difference between female teachers at the several organizational levels.

The female junior high school teacher differed from the elementary teacher (Table 13) in that she was significantly higher in self-assertion, audacity, intellectual interests, and motivation. The junior and senior high teachers appeared to be quite similar, except that

Table 11

AI Data--Female Teachers

Scale	Elementary School (N=413)			Junior High School (N=123)			Senior High School (N=125)		
	M	σ	Standard[a] Score	M	σ	Standard[a] Score	M	σ	Standard[a] Score
1	3.7627	1.7263	.3943	3.9593	1.9102	.5839	3.5120	1.7510	.1526
2	5.1525	2.2330	.6566	5.8618	2.1502	1.1815	5.8960	2.5038	1.2068
3	5.3971	2.2295	.7676	5.4065	2.1634	.7753	5.0800	2.3103	.5072
4	6.4044	2.6110	.3753	6.6829	2.6757	.5584	6.2480	2.7237	.2726
5	1.9613	1.6970	-.1788	2.5772	2.0914	.4903	2.5920	2.0242	.5064
6	4.2010	2.0820	-.1052	4.4634	2.2171	.1209	4.4160	2.2242	.0800
7	6.6247	2.1577	.7903	6.5285	2.1043	.7134	6.6320	2.2038	.7962
8	5.8741	2.0273	.3994	6.1463	2.0350	.6344	6.0960	2.1106	.5910
9	7.4964	1.8208	.6563	7.4797	1.7266	.6424	7.0080	1.9534	.2482
10	3.8184	2.3647	.3314	4.9106	2.4127	1.2518	4.9680	2.2483	1.3002
11	4.0145	2.5540	-.1100	4.6341	2.6079	.3589	4.7920	2.6300	.4784
12	3.3826	1.8812	-.5537	3.7154	2.0934	-.2341	3.6720	2.1308	-.2758
13	5.6344	1.8580	-.2332	6.1545	1.8436	.2519	5.9920	1.7041	.1004
14	2.0218	2.0448	-.5105	2.8293	2.4815	.1643	3.0640	2.5791	.3604
15	1.9225	1.6212	-.3401	2.0894	1.6380	-.1583	2.1680	1.9131	-.0726
16	7.7554	1.9072	.5530	7.0732	2.0804	-.0991	7.6000	1.6733	.4044
17	7.3172	2.3871	.2872	7.5935	2.3679	.5067	7.6560	2.1245	.5564
18	4.8305	2.0325	-.3254	5.2683	1.7901	.0741	5.3440	2.2737	.1432
19	4.4407	1.9521	-.1994	4.3740	1.9313	-.2591	4.2800	2.0183	-.3433
20	6.9564	2.0128	.2029	6.8455	2.0876	.0998	6.4880	2.0847	-.2324
21	8.4964	1.5648	.3059	8.7317	1.1899	.5642	8.7120	1.4795	.5426
22	5.8765	2.6364	-.2957	5.8618	2.8005	-.3073	5.8320	2.6495	-.3308
23	4.7700	2.0987	-.2378	4.9919	2.0541	-.0379	4.9440	2.4308	-.1712
24	5.4504	2.2923	-.6610	6.0163	2.0481	-.1461	5.8480	2.6323	-.2992
25	5.3317	2.0990	-.2240	5.6829	1.9352	.0952	5.4480	2.1070	-.1184
26	4.6392	2.9953	.1624	4.9675	2.9076	.3834	4.3360	3.1798	-.0418
27	3.7119	1.6836	-.2565	4.1545	1.6381	.2674	3.6880	1.5513	-.2848
28	4.1356	2.5170	-.3404	4.3496	2.3408	-.1745	4.0400	2.4606	-.4144
29	6.4189	1.8805	.4207	6.3740	1.9439	.3763	6.2880	1.9092	.2914
30	6.1138	2.3953	.0367	6.6992	2.0989	.5434	6.8320	2.2405	.6584

Table 11--Continued

	Elementary School (N=413)			Junior High School (N=123)			Senior High School (N=125)		
	M	σ	Standard[a] Score	M	σ	Standard[a] Score	M	σ	Standard[a] Score
Factor									
1	11.7772	6.5962	-.1866	14.4634	7.0449	.5557	14.9920	7.2867	.7018
2	10.7676	4.9710	-.3059	12.5610	5.3801	.3681	11.4960	5.1422	-.0322
3	23.4019	7.8825	.1037	24.9431	6.9695	.5047	24.2720	7.1558	.3301
4	22.7748	6.4395	.3452	24.8618	5.8509	.9760	24.8160	6.1831	.9622
5	15.9661	5.7007	-.3271	16.8455	5.2931	.0072	16.0160	5.8268	-.3081
6	23.4697	6.2813	.3428	22.6585	6.5826	.0882	22.7040	6.5958	.1024
7	23.6126	5.3710	.7248	23.6911	5.3725	.7490	22.0880	5.5527	.2540
8	25.0073	5.3196	.3344	25.0488	5.1306	.3484	23.8240	5.7076	-.0652
9	12.2881	4.6860	-.3392	12.8780	4.4147	-.1115	12.0080	4.7724	-.4473
10	11.1743	3.9290	.1383	11.6748	3.8498	.3637	11.1920	4.4930	.1462
11	14.3705	6.1817	-.6003	16.1626	6.5137	-.0578	16.1200	7.0411	-.0707
12	7.8668	3.7143	-.3797	7.7317	3.4525	-.4428	7.7360	4.0083	-.4408
Area									
1	84.6877	24.8497	-.0673	93.6748	22.1251	.6805	91.5920	24.0040	.5072
2	165.0508	18.7733	.7117	161.7886	20.4042	.3884	159.2800	20.3429	.1397
3	82.4843	22.9137	-.2366	87.9593	21.7653	.1877	85.8720	25.8878	.0259
4	109.2252	22.6630	.3877	113.0000	20.7694	.7429	109.8960	21.9348	.4508

[a] All standard scores based on female adult normative sample (see Appendix F). These scores have a mean of 0 and a standard deviation of 2.

ACTIVITIES INDEX
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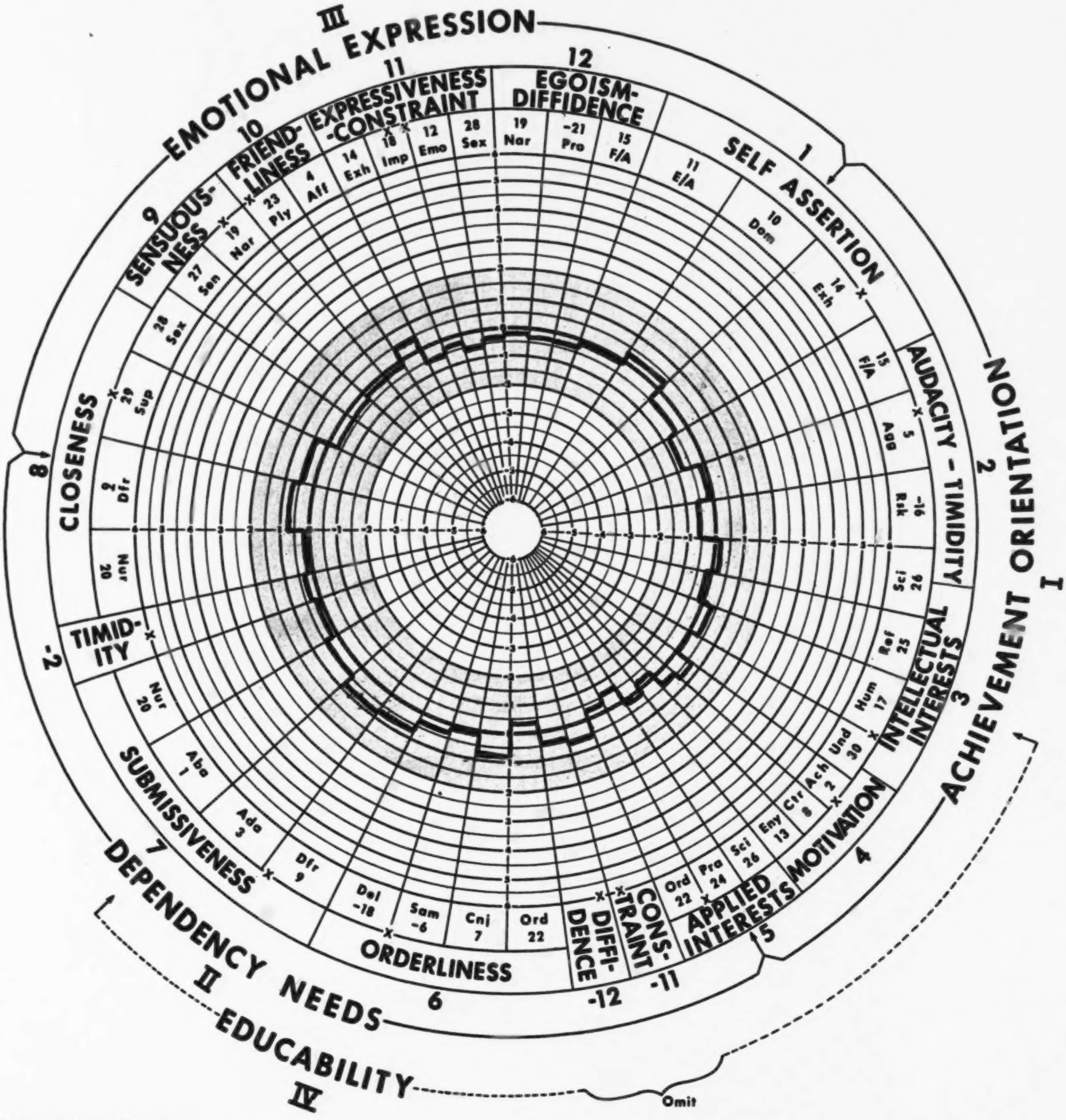
FORM 1158

NAME Elementary School Females
N = 413
CODE Fig. 4
DATE



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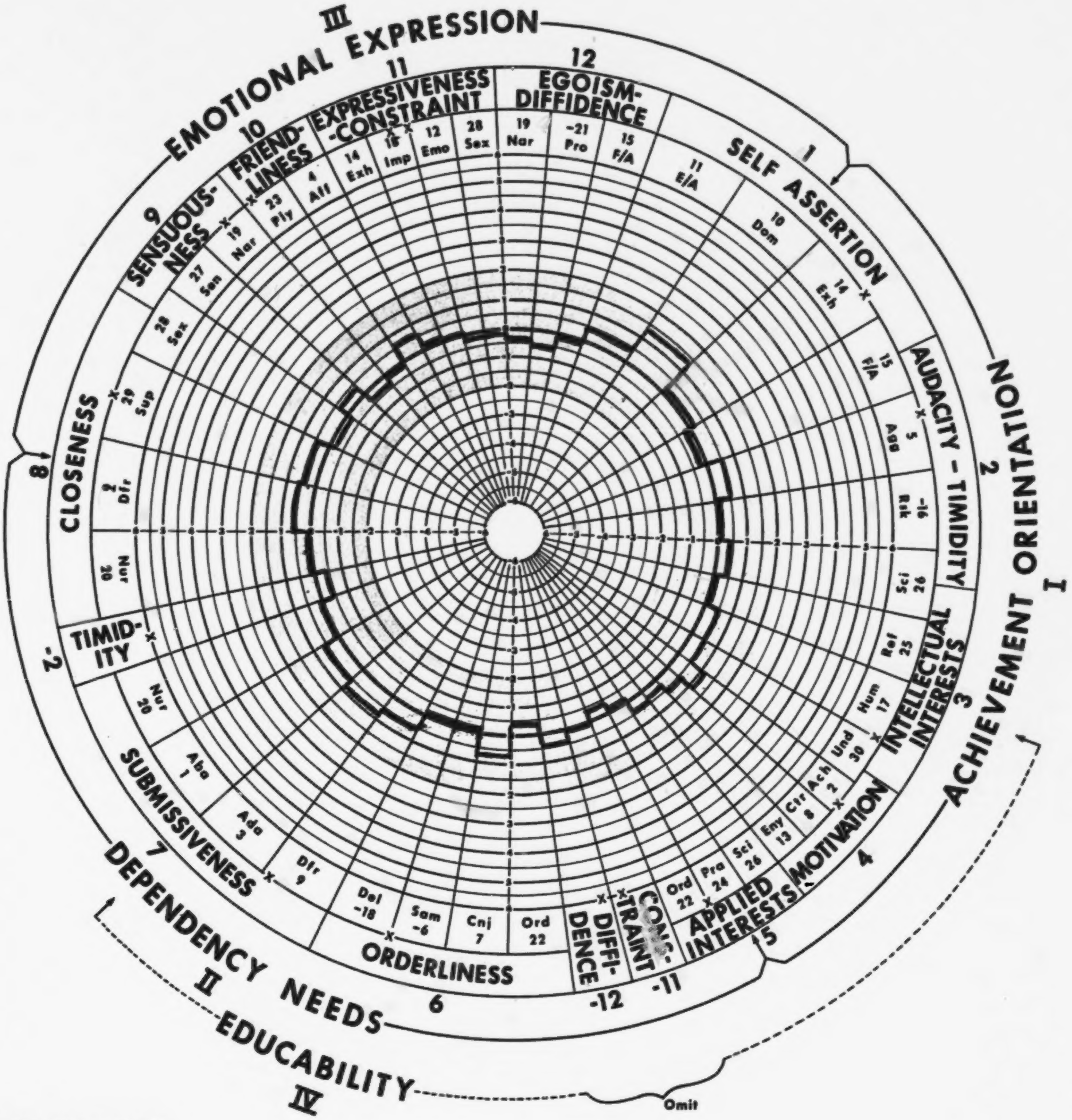
DIAGNOSTIC SUMMARY
FORM 1158

NAME Junior High School ~~Females~~ **CODE** Fig. 5
N = 123 **DATE**



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DIAGNOSTIC SUMMARY
FORM 1158

NAME Senior High School Females
N = 125

CODE Fig. 6
DATE

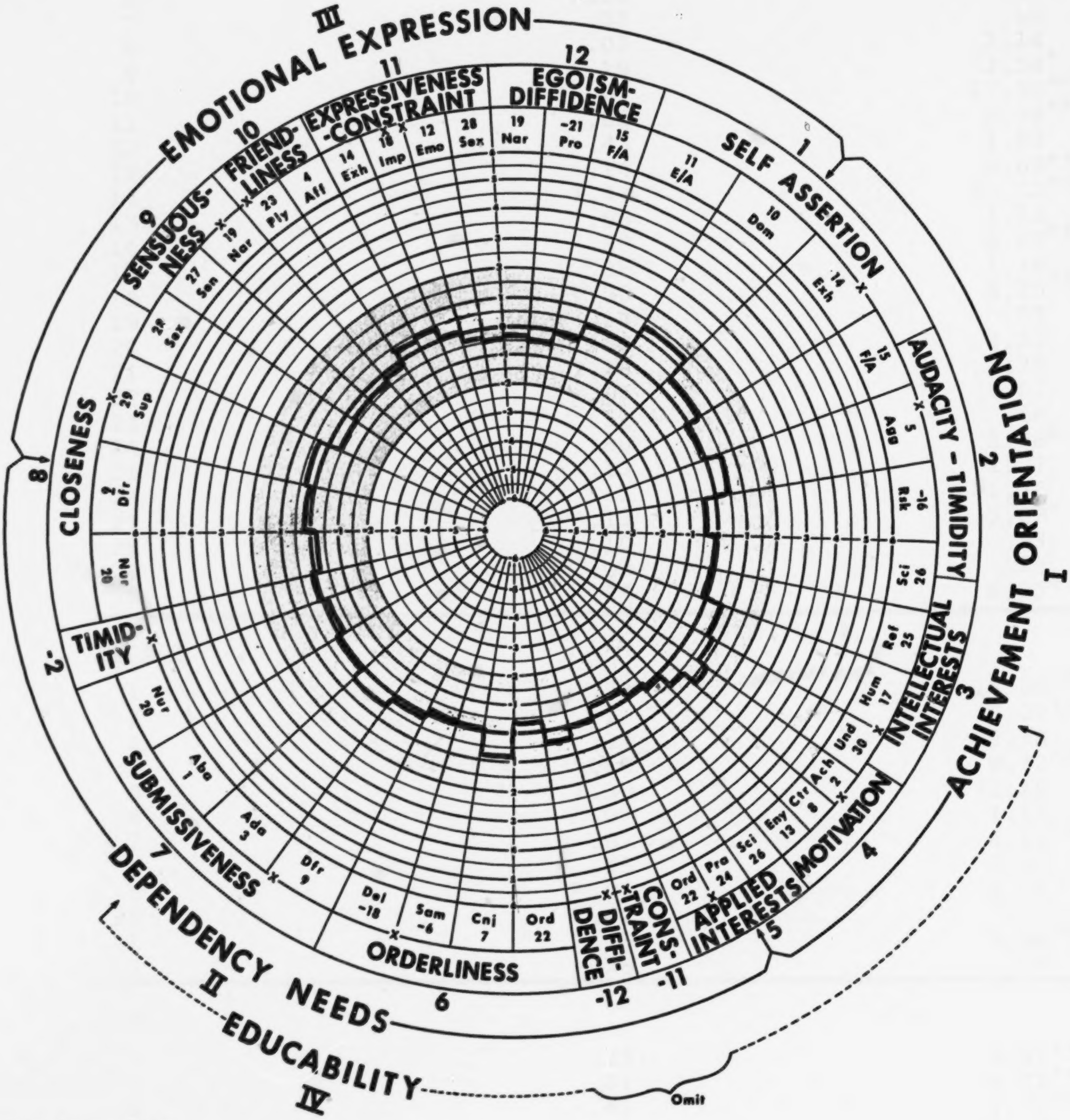

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Table 12

AI Bartlett's and F-Ratio Between Levels--Female Teachers

Scale	Bartlett's	F-Ratio
1	.20	2.00
2	.35	7.89**
3	.05	1.03
4	.04	.87
5	1.20	8.85**
6	1.30	.98
7	.03	.10
8	.03	1.14
9	.19	3.54*
10	.07	17.54**
11	.02	5.79**
12	.43	1.93
13	.14	4.68**
14	1.47	13.52**
15	.58	1.23
16	.59	6.09**
17	.26	1.36
18	.70	4.25**
19	.03	.33
20	.04	2.52
21	1.28	1.78
22	.07	.01
23	.51	.66
24	.80	3.48*
25	.13	1.37
26	.11	1.35
27	.13	3.68*
28	.10	.53
29	.02	.23
30	.35	6.23**
Factor		
1	.23	14.66**
2	.13	6.07**
3	.37	2.18
4	.18	8.32**
5	1.30	1.18
6	.07	1.17
7	.02	4.12**
8	.15	2.50
9	.09	1.16
10	.42	.76
11	.35	5.88**
12	.28	.10
Area		
1	.25	8.52**
2	.21	4.72**
3	.43	3.03**
4	.14	1.37

*p < .05.
**p < .01.

Table 13

AI Scheffé Between Levels--Female Teachers

Scale	Elementary-Junior High	Elementary-Senior High	Junior High-Senior High
1	-1.08	1.39	1.99*
2	-3.03***	-3.20***	- .12
3	- .04	1.39	1.15
4	-1.02	.58	1.29
5	-3.25***	-3.35***	- .06
6	-1.19	- .98	.17
7	.43	- .03	- .37
8	-1.29	-1.06	.19
9	.09	2.61**	2.03*
10	-4.51***	-4.78***	- .19
11	-2.33**	-2.75**	- .48
12	-1.64	-1.44	.17
13	-2.76**	-1.91*	.70
14	-3.50***	-4.55***	- .82
15	- .96	-1.43	- .37
16	3.49**	.80	-2.17*
17	-1.15	-1.42	- .21
18	-2.09*	-2.46***	- .29
19	.33	.80	.38
20	.53	2.24*	1.38
21	-1.54	-1.42	.10
22	.05	.16	.09
23	- .99	- .78	.17
24	-2.37*	-1.68*	.57
25	-1.65	- .55	.89
26	-1.06	.98	1.65
27	-2.60**	.14	2.22*
28	- .84	.38	.98
29	.23	.67	.36
30	-2.46**	-3.03***	- .45
Factor			
1	-3.83***	-4.61***	- .61
2	-3.43***	-1.40	1.64
3	-1.97*	-1.12	.70
4	-3.23***	-3.17***	.06
5	-1.51	- .09	1.15
6	1.23	1.17	- .06
7	- .14	2.75**	2.33*
8	- .08	2.16*	1.79
9	-1.23	.59	1.47
10	-1.20	- .04	.94
11	-2.71*	-2.67**	.05
12	.35	.34	.00
Area			
1	-3.61***	-2.79**	.68
2	1.63	2.91**	1.02
3	-2.28**	-1.42	.70
4	-1.65	- .30	1.10

$^{*}p < .10.$

$^{**}p < .05.$

$^{***}p < .01.$

the junior high teachers were significantly higher in submissiveness. As one might suspect the female senior high school teachers, when compared with their elementary school counterparts, were significantly more self assertive, higher in motivation, more expressive, and less submissive and close.

Summary

This chapter has described the personality characteristics of male and female teachers at each level of the organization. There were few significant differences between male teachers. Those that were found to exist were mainly between elementary and senior high school teachers. The female teachers exhibited more significant variation between levels. Aggressiveness and achievement in the broad sense was associated with secondary teachers while dependency needs and submissiveness characterized the elementary teachers. The junior high school teachers generally fell in between these two groups. Profiles of both male and female teachers were essentially normal with the exceptions indicated.

CHAPTER VI

SCHOOL ENVIRONMENT CHARACTERISTICS

Press Relationships Between Levels

Organizational Climate Index scale and factor means (Table 14) were computed for each level of the organization. These data were subjected to analysis of variance (Table 15) and multiple comparison procedures (Table 16).

It can be seen (Table 16) that there are highly significant differences in the climate between levels. Since the scale and factor variances are homongeous it can be assumed that the respective scale and factor means are truly significantly different.

It should be noted that these F's are not a function of teacher characteristics. In the previous chapter (Tables 10 and 12) it can be seen that the F's which characterized the differences between teachers do not nearly approach the magnitude of the F's which characterized the differences in climates between levels.

Table 14

OCI Data by Level

Scale	Elementary (N=414)		Junior High (N=213)		Senior High (N=247)	
	$\bar{X}$	σ	$\bar{X}$	σ	$\bar{X}$	σ
1	2.6353	1.6418	3.1831	2.0301	3.3603	1.9435
2	6.8671	1.7332	6.4695	1.9538	6.1174	1.8393
3	6.3527	1.9452	6.6150	1.9482	5.4737	2.2636
4	6.0647	1.6244	6.5962	1.9029	6.3320	1.9097
5	1.4203	1.4537	2.2347	1.9480	2.7409	1.9770
6	4.6932	1.9350	4.9906	1.9452	4.3036	1.6933
7	8.2319	2.0652	7.4695	2.3904	6.1700	2.7624
8	6.1618	1.9425	6.1690	2.1405	6.0324	2.1349
9	6.2053	1.4642	5.6009	1.5820	4.9717	1.6480
10	2.5362	1.5283	3.6244	1.8988	3.5101	1.9794
11	6.2947	1.7181	6.4460	1.7981	6.3563	1.7823
12	5.2560	1.8539	5.2676	1.8408	4.9919	1.7564
13	6.9179	1.7357	6.6009	2.2612	6.1457	2.2213
14	5.6812	1.9975	5.9671	1.8849	5.5344	2.0356
15	3.7077	1.8738	4.7230	2.0218	4.5344	2.0475
16	7.9952	1.2626	7.3568	1.3124	7.0081	1.5455
17	7.3502	2.1804	6.9531	2.1269	7.0324	2.1349
18	4.4879	2.0415	4.3662	1.9638	4.1781	1.8443
19	6.3502	1.4957	6.5023	1.5911	5.9109	1.8790
20	8.2560	1.6527	7.7371	1.9612	7.1822	2.0409
21	8.6618	1.6171	7.8451	2.1903	7.5385	2.2219
22	5.3213	1.5652	5.7934	1.6880	4.7166	1.8726
23	3.4952	1.3128	3.9014	1.3582	3.7976	1.7517
24	6.0942	1.2485	6.3005	1.2386	6.0931	1.3540
25	6.3043	2.2966	6.2160	2.5748	6.0202	2.5058
26	6.1570	2.5247	6.1174	2.4743	5.7692	2.5939
27	6.4203	1.6469	5.8263	1.8393	5.5142	1.6710
28	2.6498	1.2609	3.3521	1.5753	3.5101	1.6831
29	6.6425	1.3945	6.3709	1.5977	5.8421	1.6893
30	6.2222	1.9334	5.8216	1.9873	5.7166	2.1914
Factor						
1	61.8285	7.8977	56.8638	10.3023	54.2915	11.1502
2	26.7850	6.7595	29.4883	6.6873	29.7814	7.1270
3	40.4565	6.2587	39.3380	6.8401	34.2510	8.6132
4	52.8309	13.2942	53.0610	13.7653	50.7661	13.6887
5	49.7778	9.0356	48.5822	10.9037	46.3036	10.5413
6	21.2150	3.2976	20.6338	3.9417	19.6073	3.9791

Table 15

OCI Bartlett's and F-Ratios Between Levels

Scale	Bartlett's	F-Ratio
1	1.00	13.94**
2	.26	13.43**
3	.53	21.02**
4	.70	7.04**
5	2.42	47.09**
6	.39	7.83**
7	1.71	58.84**
8	.25	.37
9	.29	49.72**
10	1.57	37.26**
11	.05	.05
12	.06	1.91
13	1.75	11.31**
14	.09	2.80
15	.19	24.12**
16	.86	43.75**
17	.01	3.02*
18	.20	1.91
19	1.07	8.56**
20	1.03	26.41**
21	2.58	28.90**
22	.64	23.65**
23	1.85	6.54**
24	.16	2.10
25	.28	1.06
26	.03	1.95
27	.23	23.64**
28	1.87	31.83**
29	.80	21.04**
30	.32	5.70**
Factor		
1	2.65	52.45**
2	.07	19.05**
3	2.12	60.56**
4	.04	18.51**
5	.80	9.40**
6	.91	14.86**

*$p < .05$.
**$p < .01$.

Table 16

OCI Scheffé Between Levels

Scale	Elementary-Junior High	Elementary-Senior High	Junior High-Senior High
1	-3.54***	-4.92***	1.03
2	2.59**	5.12***	2.06*
3	-1.52	5.35***	5.97***
4	1.79	3.72***	1.59
5	-5.54***	-9.42***	-3.10***
6	-1.88*	2.58**	3.92***
7	3.83***	10.85***	5.88***
8	- .04	.79	.71
9	4.63***	9.90***	4.34***
10	-7.33***	-6.88***	.69
11	-1.02	- .44	.55
12	- .08	1.80*	1.61
13	1.86*	4.75***	2.41*
14	-1.71	.92	2.33*
15	-6.13***	-5.24***	1.03
16	5.56***	9.01***	2.73**
17	2.18*	1.83*	- .39
18	.73	1.95*	1.01
19	-1.10	3.34***	3.86***
20	3.33***	7.22***	3.21***
21	4.96***	7.15***	1.68*
22	-3.31***	4.45***	6.81***
23	-3.29***	-2.57**	.76
24	-1.91	.01	1.73
25	.43	1.45	.88
26	.19	1.90*	1.48
27	4.13***	6.61***	1.96*
28	-5.66***	-7.27***	-1.15
29	3.10*	6.48***	3.68***
30	2.35*	3.10***	.55
Factor			
1	6.18***	9.83***	2.89**
2	-4.67***	-5.43***	- .46
3	1.86*	10.80***	7.61***
4	- .43	4.20***	4.45***
5	1.42	4.33***	2.44*
6	1.88*	5.45***	2.99**

*p < .10.
**p < .05.
***p < .01.

Thus it would be most difficult to attribute the difference in climates between levels to the characteristics of teachers.

As can be seen in Fig. 7 the elementary level is characterized by a high degree of supportiveness, organization, and practicalness, and a low degree of impulse expression when compared with the junior high level. These same relationships hold when the elementary level is compared with the senior high level, with the exception that the elementary level is significantly higher in motivation and intellectuality.

The junior high school level falls significantly between the elementary and senior high levels in supportiveness, organization, and practicalness; however, there are no significant differences between the elementary and junior high levels in intellectuality and motivation and there are no significant differences between junior and senior high levels in impulse expression.

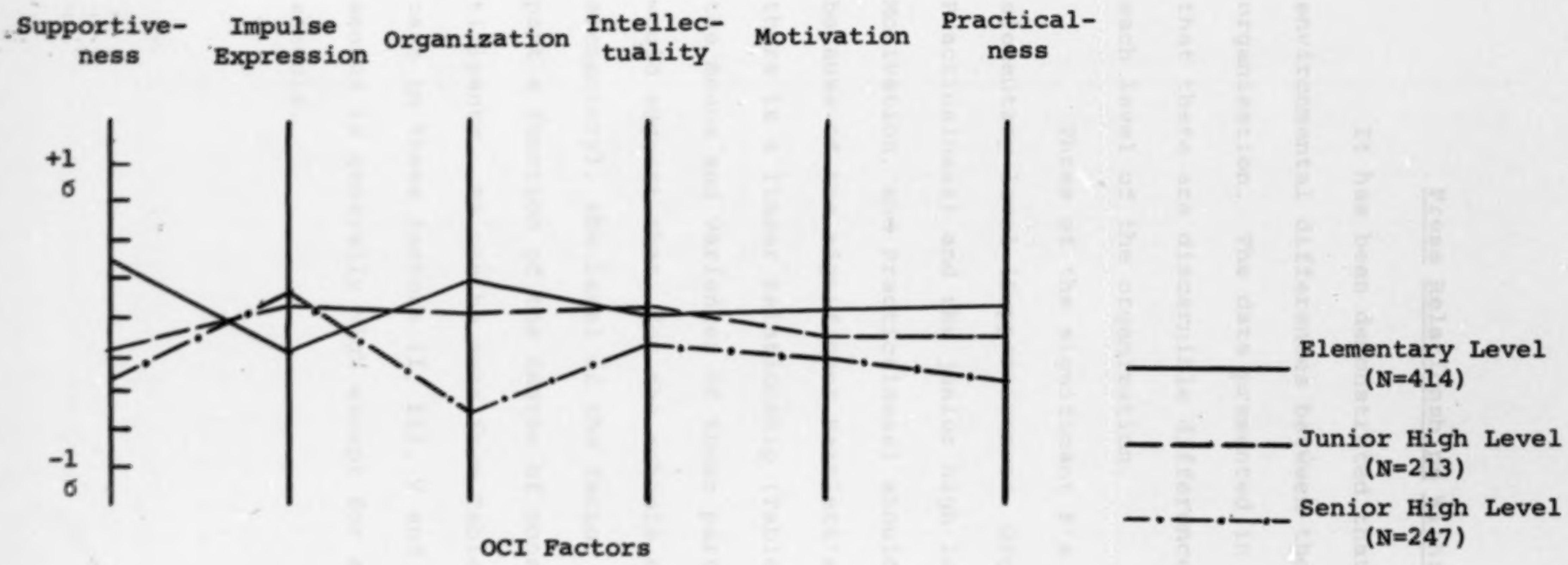

Fig. 7. Elementary, Junior High, and Senior High Factor Profiles.[a]

[a] Standard scores based on OCI responses of 931 individuals in this system; $\overline{X} = 0$, $\sigma = 1$.

Press Relationships Within Levels

It has been demonstrated that there are clear cut environmental differences between the levels of this organization. The data presented in Table 17 illustrates that there are discernible differences in climate within each level of the organization.

Three of the significant F's posited for the elementary level (Supportiveness, Organization, and Practicalness) and the junior high level (Supportiveness, Motivation, and Practicalness) should be cautiously judged because of the significant Bartlett's. It appears that there is a linear relationship (Tables 18 and 19) between the means and variances of these particular factors which would suggest that, for the schools affected (primarily elementary), the level of the factor score is at least in part a function of the degree of consensus among the participants. As can be seen from Table 18, this is the case in these factors (I, III, V and VI) where the consensus is generally high except for a few exceptional schools.

Table 17

F-Ratio's Between Schools at Each Level of the Organization--OCI

Factor	25 Elementary Schools		6 Junior High Schools (N=163)		5 Senior High Schools (N=227)	
	Bartlett's	F	Bartlett's	F	Bartlett's	F
1. Supportiveness	95.99**	1.76*	11.68*	12.79**	5.64	5.25**
2. Impulse Expression	29.43	3.23**	1.93	5.47**	3.00	5.25**
3. Organization	47.85**	3.61**	3.43	4.49**	1.05	8.54**
4. Intellectuality	31.37	1.94**	4.97	7.37**	5.21	5.50**
5. Motivation	43.95*	1.14	11.16*	8.74**	2.22	4.24**
6. Practicalness	38.57*	1.85**	10.11*	9.81**	4.70	4.55**

*$p < .05$.

**$p < .01$.

Table 18

Elementary Schools--Factor Rank Order

Rank	Factor I			Factor II			Factor III		
	School	M	σ	School	M	σ	School	M	σ
1	23	66.00	1.67	24	32.15	7.48	19	46.00	3.63
2	15	65.82	4.97	21	32.13	8.67	12	45.30	3.41
3	6	65.53	7.01	16	31.22	8.11	18	44.94	3.32
4	22	65.50	3.04	25	31.00	6.57	11	44.20	4.28
5	12	65.30	3.38	11	29.53	5.34	24	43.23	3.77
6	1	65.18	3.21	3	29.51	5.40	5	43.13	5.11
7	11	65.00	5.13	8	28.93	6.88	21	42.88	3.44
8	19	64.64	4.62	12	28.10	5.24	2	42.77	3.94
9	5	64.27	3.97	17	27.93	7.76	6	42.26	4.11
10	24	64.08	5.18	1	27.91	7.35	22	42.00	3.94
11	14	62.30	6.12	20	27.55	4.54	8	41.93	4.68
12	21	62.00	4.69	19	27.31	6.60	15	41.73	3.70
13	25	61.76	10.55	4	27.21	5.00	4	41.50	5.01
14	8	61.47	8.88	23	26.60	2.73	23	41.40	3.20
15	18	61.41	7.11	15	26.09	5.21	1	40.09	6.07
16	7	60.87	5.62	5	26.07	5.42	16	39.56	7.73
17	2	60.62	6.33	10	25.22	4.29	17	39.56	5.86
18	16	60.44	14.73	22	25.17	5.38	10	39.33	7.32
19	4	60.21	7.59	13	25.08	5.38	9	39.22	4.92
20	17	59.56	9.19	7	24.80	7.30	7	39.07	5.11
21	3	59.09	9.31	2	24.62	4.83	14	39.00	7.36
22	13	57.92	8.48	6	24.26	4.23	25	38.43	6.40
23	9	57.56	6.48	14	23.60	4.57	13	37.85	6.75
24	20	57.09	7.68	9	21.56	5.01	3	37.54	7.52
25	10	57.00	14.00	18	19.71	7.35	20	33.45	6.16

Table 18--Continued

Rank	Factor IV			Factor V			Factor VI		
	School	M	σ	School	M	σ	School	M	σ
1	19	63.79	7.62	15	54.36	7.40	6	23.11	1.88
2	8	58.67	11.56	21	53.63	7.31	11	23.07	3.28
3	15	58.36	9.46	19	53.07	6.41	8	22.67	3.18
4	21	57.50	14.70	3	52.51	9.49	15	22.36	2.50
5	25	55.48	11.27	1	52.09	7.72	19	22.29	2.31
6	18	55.24	13.36	23	51.60	1.36	12	22.20	1.78
7	16	55.00	18.13	14	51.40	6.62	22	22.08	2.33
8	11	54.87	11.00	8	51.20	6.46	5	22.07	2.24
9	5	54.80	12.77	25	51.05	6.09	1	21.91	2.50
10	4	54.14	14.76	12	51.00	7.25	21	21.75	2.11
11	3	54.14	12.00	6	50.95	8.73	25	21.62	4.21
12	12	53.90	8.84	2	50.92	5.38	17	21.59	3.47
13	14	53.80	13.54	5	50.60	6.75	18	21.06	3.47
14	1	53.55	5.79	16	50.00	12.19	23	21.00	1.90
15	6	53.32	9.91	11	49.60	6.59	24	20.85	3.50
16	23	51.80	4.79	22	49.33	6.74	14	20.80	2.14
17	2	51.15	9.29	7	48.80	8.66	3	20.54	3.56
18	22	51.08	12.20	10	48.44	10.65	7	20.47	2.85
19	17	50.59	14.40	4	48.00	9.90	20	20.36	2.90
20	7	49.33	13.65	17	47.44	11.88	16	20.11	4.33
21	13	49.23	15.97	18	46.94	10.36	4	19.86	3.81
22	24	47.54	13.25	13	45.85	10.88	2	19.85	2.80
23	10	44.11	17.45	9	45.67	8.37	10	19.78	4.39
24	20	43.09	12.18	24	45.54	9.87	13	19.46	2.98
25	9	37.98	13.57	20	44.91	8.67	9	18.11	3.35

Table 19

Scheffé Between Schools at Each Organizational Level--Junior High School

OCI Factor	School	School	Scheffé Value	Rank Order Factor Values			
					School	M	σ
I--Supportiveness	26	30	6.93^{***}	1.	26	61.70	5.45
	27	30	5.35^{***}	2.	28	60.89	7.96
	28	30	6.40^{***}	3.	31	59.67	9.88
	29	30	4.11^{***}	4.	29	57.92	8.18
	30	31	-5.88^{***}	5.	27	57.56	8.49
				6.	30	45.83	11.01
II--Impulse Expression	26	29	-4.70^{***}	1.	29	37.54	6.17
	27	29	-4.66^{***}	2.	30	30.83	6.70
	28	29	-3.98^{***}	3.	31	30.33	7.08
	29	30	3.15^{*}	4.	28	28.93	5.43
	29	31	3.33^{*}	5.	27	27.89	5.92
				6.	26	27.53	6.20
III--Organization	26	30	3.64^{**}	1.	28	42.41	4.87
	27	30	3.61^{**}	2.	26	42.00	5.20
	28	30	3.80^{**}	3.	27	41.72	5.64
				4.	31	40.04	5.96
				5.	29	38.15	6.76
				6.	30	36.43	6.77
IV--Intellectuality	26	30	4.75^{***}	1.	29	62.69	10.02
	27	30	3.85^{**}	2.	31	60.04	9.80
	28	30	5.53^{***}	3.	28	58.67	13.61
	29	30	5.41^{***}	4.	27	52.39	12.60
	30	31	-5.95^{***}	5.	26	55.73	10.48
				6.	30	40.77	13.54
V--Motivation	26	30	3.80^{***}	1.	29	60.23	5.42
	27	29	-4.58^{***}	2.	28	52.11	9.25
	28	30	4.01^{***}	3.	26	51.33	6.92
	29	30	5.78^{***}	4.	31	51.22	8.95
	30	31	-3.65^{**}	5.	27	46.17	9.88
				6.	30	42.03	11.99
VI--Practicalness	26	30	5.52^{***}	1.	28	21.74	3.01
	27	30	5.74^{***}	2.	29	21.69	3.41
	28	30	5.46^{***}	3.	26	21.67	2.34
	29	30	4.32^{***}	4.	27	21.64	3.36
	30	31	-5.09^{***}	5.	31	21.41	3.35
				6.	30	16.73	4.51

$^{*}p < .10$. $^{***}p < .01$.
$^{**}p < .05$.

The analysis of school means within levels utilizing the Scheffé technique reinforces this last statement (Tables 19 and 20). It can be seen that pairs of junior and senior high school vary significantly on one or more variable but that no pair of elementary schools appear to be significantly different (only the rank order of means is presented in Table 18 because there are no pairs of elementary schools that vary significantly on OCI factors).

The data presented above is significant because the differentiations noted between schools within each level of the organization, as well as the ones noted between levels, attests to the capacity of the OCI to recognize fine environmental distinctions.

We emphasize again that the differences observed between schools are not a function of teacher personality. An analysis of variance across levels of aggregate AI responses shows a relatively homogeneous population of teachers at each level of the organization (Table 21). Indeed when the personality data were analyzed by the

Table 20

Scheffé Between Schools at Each Organization Level--Senior High School

OCI Factor	School	School	Scheffé Value	Rank Order Factor Values			
					School	M	σ
I--Supportiveness	39	37	3.98***	1.	41	57.21	9.19
	41	37	3.32**	2.	39	57.13	8.91
				3.	38	52.22	11.58
				4.	40	52.20	12.04
				5.	37	48.80	12.45
II--Impulse Expression	39	41	3.75***	1.	38	31.59	6.47
	40	41	3.66**	2.	40	31.33	5.49
	41	38	-4.21***	3.	37	30.98	7.86
	41	37	-3.70***	4.	39	30.36	6.91
				5.	41	25.06	6.13
III--Organization	39	38	-3.09**	1.	38	39.09	7.83
	39	37	3.44**	2.	41	34.48	8.00
	40	38	-3.30**	3.	39	34.37	7.71
	41	37	2.91*	4.	40	32.73	8.27
	38	37	5.76***	5.	37	28.88	9.14
IV--Intellectuality	39	37	4.46***	1.	39	55.14	11.44
	38	37	3.04*	2.	38	52.41	15.57
				3.	40	50.17	12.29
				4.	41	49.88	10.43
				5.	37	43.83	14.43
V--Motivation	39	37	3.93***	1.	39	48.88	9.22
	38	37	3.16**	2.	38	48.07	10.94
				3.	41	46.24	9.05
				4.	40	45.40	9.85
				5.	37	41.13	11.34
VI--Practicalness	39	41	3.01*	1.	39	20.97	3.43
	39	37	3.75***	2.	38	19.54	3.72
				3.	40	19.20	4.00
				4.	41	18.58	3.20
				5.	37	18.18	4.74

$^{*}p < .10$.
$^{**}p < .05$.
$^{***}p < .01$.

Table 21

F-Ratios Between Schools at Each Level of the Organization--AI

Factor	25 Elementary Schools		6 Junior High Schools (N=173)		5 Senior High Schools (N=249)	
	Bartlett's	F	Bartlett's	F	Bartlett's	F
1. Self-assertion	32.52	1.20	2.88	2.67*	2.43	1.06
2. Audacity-Timidity	43.48**	.72	1.19	2.43*	1.51	1.01
3. Intellectual	22.00	.97	1.56	.31	1.75	2.51
4. Motivation	28.64	.76	3.62	.59	2.31	1.71
5. Applied Interests	11.24	1.24	1.92	.32	2.37	1.20
6. Orderliness	26.01	1.13	3.37	1.28	.77	1.24
7. Submissiveness	26.29	.85	2.76	.30	.72	1.65
8. Closeness	17.18	1.32	1.14	.53	.53	1.05
9. Sensuousness	19.99	1.92**	2.28	.98	2.12	1.58
10. Friendliness	19.71	1.60*	7.29	.69	1.40	1.16
11. Expressiveness	35.24	1.42	1.42	2.31*	2.68	1.11
12. Egoism-Diffidence	21.21	1.04	6.04	2.99*	2.67	1.27

*$p < .05$.
**$p < .01$.

Scheffé procedure only one pair of schools showed any significant differences, and for only one factor value.

Summary

This chapter has noted the differences between organizational levels and between individual schools within levels. The significant aspect of these data is the proof that the OCI is capable of making fine distinctions between environments, and that such distinctions are not a function of the personalities of the participants.

CHAPTER VII

NEEDS-PRESS RELATIONSHIPS

Inter-Level Needs Press Relationships

In the light of the data presented in the two preceding chapters we can infer several intra-organizational needs-press relationships.

The friendly, cooperative, and submissive elementary school teachers appear to be reinforced by a friendly, cooperative, and orderly environment. The junior high school teachers are higher in aggression, dominance, fantasied achievement, and risktaking needs than the elementary teachers, and there are significant press trends in the same direction. Finally it was observed that senior high school teachers are lower in deference, nurturance, and sexuality needs than the junior high teachers and here again there were significant environmental trends relevant to these needs (see Tables 10, 13, and 16).

Intra-Level Needs Press Relationships

We have seen in Chapter VI that there were highly significant differences in organizational climate observed between schools at each level, but that the difference between these same schools in terms of teacher personality were negligible. Although this analysis, in a crude way to be sure, pointed up the independence of the AI and OCI it was not very helpful in illuminating the more subtle relationships thought to exist between environment and personality.

A more comprehensive approach was undertaken to discover the over-all needs-press relationships between schools. This relationship between needs and press is illustrated by the intercorrelation matrix of AI/OCI matched factor responses for 41 schools.(see Table 22). Reading across the rows of this table indicates the kinds of climate in which each particular teacher personality characteristic is maximized; the kinds of teachers to be found in any of the six climates are revealed down the columns. Thus, for example, it can be seen that schools

Table 22

Factor Intercorrelations Between the AI and OCI for Forty-one Schools

	AI Factors	OCI Factors					
		Supportiveness	Impulse Expression	Organization	Intellectuality	Motivation	Practicalness
1.	Self Assertion	-728	506	-591	-091	-309	-484
2.	Audacity-Timidity	-708	452	-538	-030	-215	-439
3.	Intellectual Interests	-226	100	-099	244	081	-127
4.	Motivation	-472	266	-371	134	-035	-190
5.	Applied Interests	-051	183	125	469	249	067
6.	Orderliness	420	-208	405	311	339	351
7.	Submissiveness	340	-160	392	242	436	209
8.	Closeness	340	-003	404	223	269	169
9.	Sensuousness	-077	242	082	069	-036	-160
10.	Friendliness	-116	-005	-008	016	-140	-109
11.	Expressiveness-Constraint	-587	414	-425	-207	-292	-481
12.	Egoism-Diffidence	-427	497	-270	-047	-225	-319

characterized by a high press in supportiveness have faculties with low needs in self-assertion, audacity, motivation, and expressiveness. Teachers who are characterized by high self assertion needs are found in schools low in supportiveness, organization, and practicalness, and high in impulse expression.

Similar interpretations might be made for each of the remaining rows and columns of the table. A more adequate and systematic clarification of these relationships can be obtained, however, by means of the same factor analytic techniques and procedures described in Chapter IV.

Joint AI-OCI Factor Analysis

The factor intercorrelation matrix between the AI and the OCI (Table 22) was subjected to a principal axis factor analysis. The unrotated factors with eigenvalues approaching unity or greater are presented in Table 23. These five factors were subjected to an equamax rotational analysis to obtain a clearer picture of needs-press relationship (Table 24).

Table 23

Principal Axis Factor Analysis AI-OCI for

Forty-one Matched Schools

	1	2	3	4	5	
AI						
1. Self-assertion	-894	299	000	035	093	
2. Audacity-Timidity	-837	369	-305	032	107	
3. Intellectual Interests	-416	719	-240	-363	054	
4. Motivation	-525	483	-581	-078	007	
5. Applied Interests	-124	775	-348	-206	-164	
6. Orderliness	585	274	-260	-237	-457	
7. Submissiveness	345	485	107	-467	-138	
8. Closeness	206	358	806	-259	-094	
9. Sensuousness	-265	232	852	-016	-189	
10. Friendliness	-221	208	425	-406	581	
11. Expressiveness	-771	117	445	044	042	
12. Egoism-Diffidence	-582	161	581	195	-268	
OCI						
13. Supportiveness	904	179	140	046	140	
14. Impulse Expression	-431	381	110	689	-127	
15. Organization	752	287	219	-136	052	
16. Intellectuality	393	769	000	388	143	
17. Motivation	551	609	011	342	016	
18. Practicalness	721	365	-004	365	252	
Eigenvalue	6.07	3.51	2.90	1.63	.87	
Percent variance	34	19	16	9	5	Total 83

Table 24

Combined AI-OCI Rotation for Forty-one Schools, 5 Factor Solution

Variable	Factor Loadings[a] 1	2	3	4	5	COM
AI						
1. Self Assertion	-647	-254	422	-427	232	898
2. Audacity-Timidity	-818	-200	189	-430	111	943
3. Intellectual Interests	-883	020	084	188	244	882
4. Motivation	-898	-069	-095	-166	-075	853
5. Applied Interests	-805	223	025	321	-077	807
6. Orderliness	-075	210	-228	688	-419	750
7. Submissiveness	-190	202	010	710	147	603
8. Closeness	213	220	575	557	402	896
9. Sensuousness	124	-004	867	163	304	886
10. Friendliness	-099	-015	123	050	864	774
11. Expressiveness	-239	-277	669	331	343	809
12. Egoism-Diffidence	-087	-148	865	-172	076	813
OCI						
13. Supportiveness	419	663	-273	447	026	890
14. Impulse Expression	-300	330	578	-495	-235	834
15. Organization	273	533	-130	574	109	717
16. Intellectuality	-248	915	077	113	-032	918
17. Motivation	-065	844	017	230	-147	792
18. Practicalness	189	865	-221	126	-040	851

[a] Underlined loadings represent the input variables selected for scoring the joint AI-OCI factors.

It can be seen that of the five factors extracted in this analysis factor two is associated with the whole of the OCI, differentiating it in its entirety from the AI, while factor five is concerned only with three AI variables suggestive of a generalized teacher personality attribute regarding friendliness, warmth, and permissive acceptance.

The appearance of these two separate factors specific to each instrument in this joint factor space as distinct entities again testifies to the independence of the instruments.

Since our interest lies with the joint factors, however, for the purposes of this analysis factors two and five have been disregarded. The three factors with joint loadings are discussed below.

Organizational Culture

The factor structure presented in Table 24 describes the over-all relationships between individual needs and environment press as they exist in this particular organization. These five factors represent the combined personal and situational components of behavior in this setting and thus describe what can be deemed the organizational culture. The relationships identified in the factor structure represent organizational rather than either environmental or personal relationships alone. It has been shown that an individual percept of the environment is not a function of personality (McFee, 1961; Saunders, undated). What is represented here then is the over-all ordering or constellation of these relationships by the sub units (the schools) of the organization.

It should be noted at this point that this analysis of Organizational Culture is somewhat incomplete. A comprehensive analysis of culture would include personality and environment data from all participants. Students' characterizations have not been included in this study.

The Conventional Culture

Factor 1 in Table 24 represents the conventional school culture. Teachers who have low needs in self-assertion, audacity, intellectual interests, motivation, and applied interests are found in schools high in supportiveness. This factor describes the generalized difference between secondary school and elementary school cultures. It can be seen that the elementary schools are all arrayed at the high end of Culture I, positing a conforming paternalistic cultural milieu. This is clearly shown in Table 25 which presents the ordering of schools by summing the combined factor scores described above.

This factor does not imply that the achievement needs of secondary school teachers are supported or satisfied by a climate low in supportiveness. It merely states that teachers who have high achievement needs are not found in supportive climates. The question of satisfaction is discussed in the following chapter.

The Work Culture

Factor 4 in Table 24 describes schools which employ teachers who have high needs in timidity, orderliness, submissiveness, and closeness, and low needs in self-assertion. These same schools are characterized by a high degree of supportiveness and organization and a low

Table 25

Combined AI-OCI Factor Scores and Related Principal's AI Response--Culture I

	School		Culture I	Sex	Principal's AI Scores															
					Factor												Area			
					1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
1	30	JH	131.75	M	18	13	26	20	24	27	20	22	9	9	16	2	101	172	76	117
2	40	SH	134.84	M	35	27	39	35	24	9	29	35	22	15	35	14	160	131	156	136
3	37	SH	139.30	M	7	13	20	20	22	33	15	14	8	7	4	6	82	171	46	110
4	29	JH	139.77	M	33	24	27	26	22	26	29	30	16	13	22	14	132	157	128	130
5	41	SH	142.02	M	18	10	33	33	15	26	22	21	10	10	13	5	109	166	77	129
6	38	SH	143.68	M	21	21	30	23	21	20	26	26	14	13	13	12	116	157	99	120
7	27	JH	147.50	M	12	9	20	24	19	34	28	19	9	10	5	8	84	188	63	125
8	39	SH	151.08	M	16	19	32	33	26	35	30	30	10	8	10	11	126	191	85	156
9	35	C	152.11[a]	M	14	17	28	18	25	28	25	33	20	14	15	12	102	177	108	124
10	32	C	152.66	M	18	17	30	34	21	33	17	19	7	4	5	6	120	172	59	135
11	31	JH	153.77	M	29	31	39	37	18	12	29	25	9	13	20	9	154	134	105	135
12	18	EL	153.96	F	10	9	27	29	18	20	24	26	6	12	8	4	93	177	66	118
13	14	EL	154.39	M	17	17	36	37	28	29	31	27	8	8	9	4	135	195	73	161
14	36	C	157.52	M	10	11	18	24	24	34	27	25	6	10	6	5	87	198	62	127
15	21	EL	159.57	F	21	13	30	31	17	20	30	29	7	15	12	2	112	179	86	128
16	9	EL	160.23	F	10	14	27	30	29	28	26	25	9	12	14	3	110	187	73	140
17	20	EL	160.76	M	28	26	36	36	30	27	28	27	14	13	19	10	156	167	111	157
18	17	EL	161.27	F	15	5	23	24	19	19	33	27	6	16	13	2	86	188	79	118
19	34	C	161.43	M	29	18	23	31	11	16	16	23	12	16	19	11	112	128	110	97
20	19	EL	161.77	F	13	0	15	14	4	21	12	11	4	12	9	4	46	145	53	66
21	13	EL	162.69	F	11	10	19	19	19	31	23	27	20	14	18	12	78	170	102	111
22	8	EL	164.47	F	31	22	34	32	26	19	25	28	15	18	26	11	145	149	129	136
23	15	EL	167.28	F	10	3	15	24	17	25	22	20	6	10	11	3	69	177	60	103
24	2	EL	168.55	M	11	6	26	27	12	29	28	24	9	11	13	11	82	173	79	122
25	25	EL	168.80[b]	M	16	14	21	22	15	21	25	26	12	9	8	9	88	166	80	104
26	16	EL	169.24	F	9	14	31	25	24	26	28	23	13	7	14	7	103	176	73	134
27	22	EL	171.17	F	16	13	23	27	17	25	32	31	17	16	22	11	96	169	113	124
28	5	EL	171.33	F	25	16	30	30	25	30	28	29	14	15	18	15	126	173	116	143
29	10	EL	172.80	F	19	13	31	24	18	17	21	29	15	17	21	9	105	152	110	111
30	11	EL	172.84	F	6	7	13	10	11	16	27	30	12	9	17	5	47	165	79	77
31	7	EL	174.99	M	15	22	38	35	17	14	17	19	11	11	17	1	127	137	74	121
32	24	EL	175.15	F	10	3	15	13	10	27	31	23	3	11	6	2	51	190	55	96
33	23	EL	177.00	F	17	5	23	15	17	22	24	30	13	13	15	2	77	181	90	101
34	6	EL	177.43	F	10	8	18	17	19	27	26	33	17	14	19	5	72	183	98	107

[a] 75 percentile.   [b] 25 percentile   M = 159.21 σ = 12.44

degree of impulse expression. Table 26 ranks the schools by summing the factors described above.

It is quite apparent that the elementary schools with a high Culture II score are highly structured, work-oriented institutions employing friendly but deferent and conforming teachers. Schools with low Culture II scores tend to be characterized by environments low in supportiveness and organization, employing people with relatively low dependency needs.

This factor appears to be a variant of the conventional school culture which emphasizes the more constricted aspects of public school organization. The one that follows reflects the other extreme.

The Play Culture

Factor 3 in Table 24 describes schools which are characterized by a high degree of impulse expression and which employ teachers who have high needs in self-assertion, closeness, sensuousness, expressiveness, and egoism which are measures of emotional expression. Table 27 ranks the schools by summing the factors described above.

Table 26

Combined AI-OCI Factor Scores and Related Principal's AI Response--Culture II

	School	Culture II	Sex	Principal's AI Scores															
				Factor												Area			
				1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
1	6 EL	287.43	F	10	8	18	17	19	27	26	33	17	14	19	5	72	183	98	107
2	15 EL	285.54	F	10	3	15	24	17	25	22	20	6	10	11	3	69	177	60	103
3	23 EL	284.30	F	17	5	23	15	17	22	24	30	13	13	15	2	77	181	90	101
4	5 EL	282.33	F	25	16	30	30	25	30	28	29	14	15	18	15	126	173	116	143
5	18 EL	282.14	F	10	9	27	29	18	20	24	26	6	12	8	4	93	177	66	118
6	22 EL	281.91	F	16	13	23	27	17	25	32	31	17	16	22	11	96	169	113	124
7	24 EL	279.45	F	10	3	15	13	10	27	31	23	3	11	6	2	51	190	55	96
8	2 EL	279.35	M	11	6	26	27	12	29	28	24	9	11	13	11	82	173	79	122
9	11 EL	279.04 [a]	F	6	7	13	10	11	16	27	30	12	9	17	5	47	165	79	77
10	8 EL	275.91	F	31	22	34	32	26	19	25	28	15	18	26	11	145	149	129	136
11	19 EL	275.41	F	13	0	15	14	4	21	12	11	4	12	9	4	46	145	53	66
12	14 EL	274.70	M	17	17	36	37	28	29	31	27	8	8	9	4	135	195	73	161
13	21 EL	273.03	F	21	13	30	31	17	20	30	29	7	15	12	2	112	179	86	128
14	13 EL	272.91	F	11	10	19	19	19	31	23	27	20	14	18	12	78	170	102	111
15	7 EL	272.78	M	15	22	38	35	17	14	17	19	11	11	17	1	127	137	74	121
16	10 EL	271.71	F	19	13	31	24	18	17	21	29	15	17	21	9	105	152	110	111
17	9 EL	271.39	F	10	14	27	30	29	28	26	25	9	12	14	3	110	187	73	140
18	25 EL	268.29	M	16	14	21	22	15	21	25	26	12	9	8	9	88	166	80	104
19	32 C	266.23	M	18	17	30	34	21	33	17	19	7	4	5	6	120	172	59	135
20	17 EL	265.62	F	15	5	23	24	19	19	33	27	6	16	13	2	86	188	79	118
21	31 JH	265.41	M	29	31	39	37	18	12	29	25	9	13	20	9	154	134	105	135
22	16 EL	263.58	F	9	14	31	25	24	26	28	23	13	7	14	7	103	176	73	134
23	27 JH	263.10	M	12	9	20	24	19	34	28	19	9	10	5	8	84	188	63	125
24	36 C	260.97	M	10	11	18	24	24	34	27	25	6	10	6	5	87	198	62	127
25	20 EL	258.24 [b]	M	28	26	36	36	30	27	28	27	14	13	19	10	156	167	111	157
26	34 C	258.15	M	29	18	23	31	11	16	16	23	12	16	19	11	112	128	110	97
27	41 SH	254.35	M	18	10	33	33	15	26	22	21	10	10	13	5	109	166	77	129
28	35 C	252.34	M	14	17	28	18	25	28	25	33	20	14	15	12	102	177	108	124
29	38 SH	248.18	M	21	21	30	23	21	20	26	26	14	13	13	12	116	157	99	120
30	29 JH	246.98	M	33	24	27	26	22	26	29	30	16	13	22	14	132	157	128	130
31	39 SH	245.87	M	16	19	32	33	26	35	30	30	10	8	10	11	126	191	85	156
32	40 SH	237.53	M	35	27	39	35	24	9	29	35	22	15	35	14	160	131	156	136
33	30 JH	234.37	M	18	13	26	20	24	27	20	22	9	9	16	2	101	172	76	117
34	37 SH	225.36	M	7	13	20	20	22	33	15	14	8	7	4	6	82	171	46	110

[a] 75 percentile.

[b] 25 percentile.

M = 266

σ = 4.85

Table 27

Combined AI-OCI Factor Scores and Related Principal's AI Responses--Culture III

	School	Culture III	Sex	Principal's AI Scores															
				Factor												Area			
				1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
1	21 EL	116.57	F	21	13	30	31	17	20	30	29	7	15	12	2	112	179	86	128
2	30 JH	115.61	M	18	13	26	20	24	27	20	22	9	9	16	2	101	172	76	117
3	38 SH	113.21	M	21	21	30	23	21	20	26	26	14	13	13	12	116	157	99	120
4	29 JH	113.16	M	33	24	27	26	22	26	29	30	16	13	22	14	132	157	128	130
5	37 SH	113.02	M	7	13	20	20	22	33	15	14	8	7	4	6	82	171	46	110
6	16 EL	112.42	F	9	14	31	25	24	26	28	23	13	7	14	7	103	176	73	134
7	40 SH	112.26	M	35	27	39	35	24	9	29	35	22	15	35	14	160	131	156	136
8	27 JH	106.78	M	12	9	20	24	19	34	28	19	9	10	5	8	84	188	63	125
9	17 EL	104.30[a]	F	15	5	23	24	19	19	33	27	6	16	13	2	86	188	79	118
10	25 EL	104.28	M	16	14	21	22	15	21	25	26	12	9	8	9	88	166	80	104
11	34 C	103.94	M	29	18	23	31	11	16	16	23	12	16	19	11	112	128	110	97
12	31 JH	103.74	M	29	31	39	37	18	12	29	25	9	13	20	9	154	134	105	135
13	23 EL	103.26	F	17	5	23	15	17	22	24	30	13	13	15	2	77	181	90	101
14	39 SH	103.26	M	16	19	32	33	26	35	30	30	10	8	10	11	126	191	85	156
15	19 EL	102.71	F	13	0	15	14	4	21	12	11	4	12	9	4	46	145	53	66
16	35 C	102.60	M	14	17	28	18	25	28	25	33	20	14	15	12	102	177	108	124
17	13 EL	101.86	F	11	10	19	19	19	31	23	27	20	14	18	12	78	170	102	111
18	41 SH	101.57	M	18	10	33	33	15	26	22	21	10	10	13	5	109	166	77	129
19	24 EL	99.36	F	10	3	15	13	10	27	31	23	3	11	6	2	51	190	55	96
20	11 EL	98.79	F	6	7	13	10	11	16	27	30	12	9	17	5	47	165	79	77
21	32 C	98.29	M	18	17	30	34	21	33	17	19	7	4	5	6	120	172	59	135
22	8 EL	97.44	F	21	22	34	32	26	19	25	28	15	18	26	11	145	149	129	136
23	9 EL	97.39	F	10	14	27	30	29	28	26	25	9	12	14	3	110	187	73	140
24	36 C	97.38	M	10	11	18	24	24	34	27	25	6	10	6	5	87	198	62	127
25	20 EL	95.13[b]	M	28	26	36	36	30	27	28	27	14	13	19	10	156	167	111	157
26	14 EL	94.23	M	17	17	36	37	28	29	31	27	8	8	9	4	135	195	73	161
27	2 EL	93.83	M	11	6	26	27	12	29	28	24	9	11	13	11	82	173	79	122
28	18 EL	93.21	F	10	9	27	29	18	20	24	26	6	12	8	4	93	177	66	118
29	5 EL	91.85	F	25	16	30	30	25	30	28	29	14	15	18	15	126	173	116	143
30	6 EL	90.16	F	10	8	18	17	19	27	26	33	17	14	19	5	72	183	98	107
31	7 EL	87.97	M	15	22	38	35	17	14	17	19	11	11	17	1	127	137	74	121
32	22 EL	87.01	F	16	13	23	27	17	25	32	31	17	16	22	11	96	169	113	124
33	15 EL	85.08	F	10	3	15	24	17	25	22	20	6	10	11	3	69	177	60	103
34	10 EL	82.22	F	19	13	31	24	18	17	21	29	15	17	21	9	105	152	110	111

[a] 75 percentile. M = 100.70

[b] 25 percentile. σ = 8.84

Schools with a high Culture III score tend to be placed where high needs in the area of emotional expression are supported by the acceptance of socially aggressive behavior. Schools with low scores in Culture III tend to be emotionally restricted and the behavior of teachers in these schools is likely to be highly constrained.

It would have been desirable to apply the same statistical treatments used previously, i.e., analysis of variance, to analyze the difference between schools with respect to the extracted culture factors. This was not possible because the individual AI/OCI responses could not be matched because of the necessity of preserving the respondents' anonymity. Therefore, it was impossible to regenerate the needed data for computing within-schools variances.

Principal-Culture Relationships

The question of the relationship of organizational culture to principal personality characteristics was examined by correlating the administratdr's scores on the twelve factor and four area personality constructs of the

Activities Index with the culture scores of their respective schools. The results are shown in Table 28.

There appears to be a generally negative relationship between the first five factors (Area 1) of the conventional school culture. This indicates that principals with low achievement needs (AI Factors 1-5 and Areal) are to be found in the schools with high conventional culture scores, i.e., in the elementary schools among teachers characterized by a similar low level of achievement needs.

The negative correlations for the same five factors with Culture II further substantiate this observation. In a highly organized work-oriented culture it might be expected that the building principal would be somewhat of an autocrat. However, it is apparent that in the work culture the principal is likely to score lowest in the need factor of audacity (high timidity). In addition, the significant positive correlation with submissiveness suggests that the constrained environment of the work culture schools is related to the dependency needs of their respective administrators, perhaps reflecting the concern

Table 28

Intercorrelation of Principals' AI Response and Organizational Cultures

Factor	Culture I	II	III
1. Self-assertion	-.32	-.28	-.08
2. Audacity-Timidity	-.38	-.45	.20
3. Intellectual Interests	-.29	-.27	.06
4. Motivation	-.27	-.15	-.10
5. Applied Interests	-.35	-.35	.07
6. Orderliness	-.13	-.10	-.02
7. Submissiveness	.09	.27	.03
8. Closeness	.13	.12	-.08
9. Sensuousness	-.02	-.15	.02
10. Friendliness	.27	.23	-.17
11. Expressiveness	.01	-.04	-.05
12. Egoism-Diffidence	-.20	-.26	.08
Area			
1. Intellectual Needs	-.39	-.36	.11
2. Dependency	.10	.19	-.08
3. Emotional Expression	-.07	-.11	.03
4. Educability	-.14	-.10	.002

of these principals with what they consider to be the expectations of their superiors.

There is no significant relationship between principals' AI responses and Culture III, the Play Culture, although the one correlation of any significance is a positive one with timidity. Evidently this third culture is determined more by the teacher than by the principal in those cases.

Summary

The relationships between needs and press in the 41 participating schools of this system were examined and 3 organizational cultures were extracted using factor analytic techniques. When the AI responses of building principals' were correlated with these three cultures, it was determined that these principals were more the products of these cultures than the masters of them. This point is discussed in the following chapter.

The relationship between organizational culture and the conventional or morphological aspects of the organization has not been examined in this paper. A complete analysis of those relationships is currently being undertaken by George Hamaty, School of Education, Syracuse University, utilizing the data from this study.

CHAPTER VIII

SUMMARY AND IMPLICATIONS

The present study was designed to describe the psychological environment of an urban public school system. To achieve this purpose the Organizational Climate Index was adapted from the College Characteristics Index and was utilized with its companion personality measure, the Activities Index, to describe the relationships between individual needs and environmental press in public schools.

The responses to the OCI were subjected to tests to determine item consistency and scale reliability. The results indicated a fair degree of item discrimination. Scale reliabilities were found to be reasonably high.

A factor analysis of the 931 OCI responses yielded six first order factors which were, upon examination, generally similar to the factors which define the College Characteristics Index. Hypothesis 4 was accepted.

The personalities of male and female teachers, at each level of the organization, were described and compared. Group profiles of both male and female teachers, with respect to the adult norms were essentially conventional with the exceptions noted in Chapter VI. Likewise the OCI responses of teachers at each level of the organization were described and compared. It was found that there were considerable differences between levels as regards environment but the differences between levels in terms of personality were largely restricted to the females. Hypothesis 2 was accepted.

In examining each level of the organization independently it was found that there were generally significant differences between school environments in the high schools and junior high schools. There were, however, no significant differences in teacher personality between school levels. Hypothesis 1 was therefore rejected as regards the Activities Index but accepted in terms of the Organizational Climate Index. Hypothesis 3, positing specific relationships between OCI and AI differences, was necessarily rejected on the basis of this analysis.

The over-all relationships between individual needs and environmental press posited by Hypotheses 1 and 3 were supported, however, by an alternative approach. The matched AI/OCI factor responses for 41 schools were intercorrelated, factored, and rotated and from this matrix three organizational cultures were extracted: the conventional culture, the work culture, and the play culture. These organizational cultures represent the synthesis of the relationships implied by Hypotheses 1 and 3.

Because of the key role of the principal, and because in the system being studied all principals were chosen from within the system, it was decided to examine the relationship between the characteristics of building principals and their respective organizational cultures.

It was demonstrated that the principals largely reflect the need structure of their respective school cultures. To a large extent, therefore, the administrative staff serves to maintain the status quo. This can be attributed in part to that which the principals as a group perceive as a mandate from above and in part from their local rather than cosmopolitan orientation (Abbott, 1965), i.e., the mandate from subordinates.

Implications

Congruance and Dysfunctionality

The organizational cultures identified in this study describe the over-all ordering or constellation of needs-press relationships. It is important to note that these cultures are not necessarily congruent at all levels of the system.

An analysis of Tables 10, 13, and 16 revealed over-all dysfunctional needs-press trends. Senior high school teachers were highest in achievement, change, energy, impulsiveness, and understanding needs when compared with elemenatry school teachers, but the secondary school press was particularly lacking in supportive components. Although the docility of the elementary school teachers is congruent with the paternalistic character of their press, it appears that at the secondary school level the functional relationship between teacher needs and school press is lacking.

The relative congruence posited for the elementary school level should not be construed to mean that satisfaction, or high morale in the technical sense, characterizes the elementary school level. It is the nature or character of congruence that is most important. The present study indicates that many of these schools are stratified at a conforming and paternalistic level.

The inadequate functional needs-press relationship noted for the secondary school and the generally low potential for independent or self-actualized behavior in the system indicates that there are likely to be potential organizational problems at this level.

These dysfunctional relationships are likely to be manifested by excessive turnover, absenteeism, the flight to administrative or supervisory positions, disabling anxiety, apathy and lack of ego involvement in organizational goals, formation of informal groups and emphasis on money and material rewards rather than self growth and creativity (Argyris, 1959). It is not meant to imply that all or any of the undesirable symptoms mentioned above characterize the present system but rather to suggest that if any such symptoms appear at least part of the malady has already been diagnosed.

A study by George Hamaty, School of Education, Syracuse University is now underway to determine to what extent the differences in culture described in this study are associated with the aspects of program conventionally used to measure quality in educational institutions.

Staff Considerations

These data raise the following general administrative questions:

1. Under what circumstances can the building principal be a driving force in promoting innovation and creativity in his domain?
2. Under what circumstances is the building principal organizationally free to promote innovation and creativity?
3. What subtle effects do the cultures described in this paper have on the behavior of teachers and children?

4. How much additional self-actualization could this system profitably encourage without damaging the organizational structure?

It would not be improper to recognize that creativity and innovation require both a soil rich in intellect and a free vigorous environment in which to mature. To strive for organizational self-realization but to provide for paternalism and conformity is indeed an exercise in "milking oysters."

Conclusion

This paper has described the development of the Organizational Climate Index and presented a method of utilizing this instrument with its complementary personality measure, the Activities Index, to objectively measure the relationship between organism and environment in a formal organization. The results have yielded fascinating insights into the dynamics of organizational behavior and the ongoing studies by Hamaty, and Stern and Cohen referred to in the text, promise to reveal even more subtle aspects of organizational culture.

The evidence presented indicates that the instruments utilized in this study are effective in describing the concomitants of behavior and, therefore, might be usefully employed in describing psychological environments in a wide variety of institutional settings. Certainly, future research efforts in this direction should prove most interesting and profitable.

APPENDICES

APPENDIX A

AI-OCI SCALE, FACTOR, AND AREA VALUES BY SCHOOL

Scale, Factor, and Area Values for Schools
N = 41 (AI); 43 (OCI)

Scale		School 1				School 2			
		AI (N=12)		OCI (N=11)		AI (N=14)		OCI (N=13)	
		M	SD	M	SD	M	SD	M	SD
1 Aba		3.92	1.44	1.73	1.14	3.71	2.12	2.85	1.66
2 Ach		4.92	1.80	6.91	1.08	5.21	2.21	7.77	1.12
3 Ada		5.75	2.62	5.55	2.43	5.64	1.54	6.77	1.42
4 Aff		7.50	2.10	7.36	0.98	6.43	3.16	6.46	0.93
5 Agg		2.33	1.80	1.18	0.94	1.86	1.85	1.23	1.31
6 Cha		4.25	2.28	5.18	1.80	4.21	2.04	5.00	1.47
7 Cnj		6.92	1.80	9.00	0.85	7.43	1.29	9.08	0.92
8 Ctr		5.25	1.79	6.27	1.76	5.50	1.88	5.77	1.48
9 Dfr		8.42	1.44	6.73	1.05	8.29	1.62	6.08	1.27
10 Dom		4.50	2.99	2.27	0.96	4.00	2.56	2.31	1.26
11 E/A		5.00	2.52	6.55	1.56	3.21	2.65	6.38	1.33
12 Emo		4.42	1.89	5.82	2.08	2.79	2.01	4.69	1.26
13 Eny		5.33	1.70	6.73	1.54	5.43	1.59	8.00	0.88
14 Exh		3.25	2.55	5.82	1.53	2.50	1.99	5.31	0.99
15 F/A		1.92	1.50	3.82	1.11	1.50	1.50	2.69	1.44
16 Har		8.00	1.41	8.09	0.79	7.50	1.84	8.15	0.77
17 Hum		8.33	1.11	7.27	1.54	7.36	2.22	7.08	1.44
18 Imp		5.33	2.25	5.18	1.47	5.29	2.31	4.31	1.64
19 Nar		4.67	2.53	5.82	1.70	4.07	2.15	6.54	1.50
20 Nur		6.58	2.06	8.36	1.23	6.43	1.88	7.54	1.39
21 Obj		8.58	1.04	9.27	0.75	8.29	1.79	8.46	1.39
22 Ord		5.75	3.06	4.91	1.56	5.93	2.09	6.15	1.29
23 Ply		4.58	2.02	3.91	1.08	4.86	2.29	3.00	1.30
24 Pra		4.42	2.33	6.18	1.47	4.43	2.56	5.85	1.35
25 Ref		5.25	1.59	6.00	1.91	5.21	1.86	6.23	1.67
26 Sci		4.92	3.25	6.27	2.26	4.79	2.83	5.85	2.21
27 Sen		3.67	1.75	6.27	1.42	3.71	1.53	6.46	1.28
28 Sex		4.25	3.29	2.73	1.66	3.93	2.87	2.15	0.86
29 Sup		6.75	1.64	7.27	1.14	5.86	1.68	6.38	1.44
30 Und		5.67	1.89	6.36	1.67	5.79	2.24	6.15	1.56
Factors									
AI	OCI								
1 S/Asan	1 Supp	14.67	7.97	65.18	3.21	11.21	7.31	60.62	6.33
2 Aud/Tim	2 Inp./Exp.	11.17	5.61	27.91	7.35	10.64	4.73	24.62	4.83
3 In/Int	3 Orgn	24.17	5.67	40.09	6.07	23.14	7.13	42.77	3.94
4 Motiv.	4 Intell.	21.17	4.72	53.55	5.79	21.93	5.22	51.15	9.29
5 Ap/Int	5 Motiv.	15.08	7.04	52.09	7.72	15.14	5.49	50.92	5.38
6 Order.	6 Pract.	23.08	7.44	21.91	2.50	23.86	5.15	19.85	2.80
7 Submis.		24.67	4.77			24.07	3.31		
8 Close.		26.00	5.74			24.50	5.59		
9 Sens.		12.58	6.76			11.71	4.80		
10 Frnd.		12.08	3.28			11.29	4.33		
11 Exp/Con		17.25	9.16			14.50	7.34		
12 Ego/Dif		8.00	3.76			7.29	4.35		
Areas									
1 Intell. Needs		86.25	24.70			82.07	23.04		
2 Dependency		162.42	21.75			165.14	19.32		
3 Emo. Express.		90.58	32.39			80.50	26.30		
4 Educability		108.17	20.49			108.14	16.10		

Scale, Factor, and Area Values--Continued

Scale	School							
	3				4			
	AI (N=41)		OCI (N=35)		AI (N=17)		OCI (N=14)	
	M	SD	M	SD	M	SD	M	SD
1	3.80	1.86	2.77	1.73	4.00	1.78	2.71	1.10
2	4.85	2.37	6.86	1.71	4.53	2.17	6.00	2.56
3	5.76	2.38	6.40	1.84	5.65	2.30	7.07	1.83
4	6.41	2.57	6.29	1.97	6.59	2.52	6.50	1.40
5	2.44	1.91	2.09	1.59	2.12	1.94	1.21	1.37
6	5.12	2.35	6.31	1.72	4.12	1.81	5.57	1.72
7	6.17	2.51	6.57	2.91	7.12	1.78	8.43	1.50
8	5.76	1.90	6.31	1.95	6.00	1.41	5.36	1.63
9	7.24	2.22	6.26	1.42	7.88	1.88	5.93	1.49
10	4.12	2.49	2.65	1.90	3.29	2.65	2.71	1.33
11	4.59	2.73	6.57	1.76	3.82	2.75	6.29	1.79
12	4.41	2.23	6.37	1.93	3.00	1.85	4.71	1.53
13	5.83	1.91	7.37	1.77	5.59	1.61	6.50	1.55
14	2.93	2.45	5.89	1.94	2.00	2.33	6.36	2.12
15	2.39	1.82	3.74	1.61	1.88	1.71	4.50	1.45
16	7.39	2.00	7.63	1.59	8.35	1.97	7.86	0.91
17	7.59	2.38	6.94	1.84	7.47	1.68	6.93	2.43
18	4.98	2.02	5.09	1.95	4.24	1.31	4.79	1.86
19	4.49	1.78	5.94	1.47	5.24	1.73	6.43	1.35
20	7.22	2.25	7.97	1.52	6.47	1.72	7.43	2.44
21	8.63	1.22	8.49	1.68	8.94	0.87	8.64	1.39
22	5.76	2.99	4.74	1.52	7.95	2.43	5.79	1.42
23	4.63	2.25	3.66	1.04	4.35	2.11	3.43	0.90
24	5.46	2.21	6.29	1.14	6.47	2.09	5.93	1.44
25	5.85	1.91	6.40	2.23	6.00	1.72	6.14	2.13
26	4.76	3.11	6.54	2.07	5.29	3.01	5.64	2.79
27	4.32	1.72	6.26	1.63	3.88	1.64	6.43	1.50
28	4.88	2.49	2.69	1.01	4.29	2.35	2.64	0.97
29	6.88	1.68	6.23	1.55	6.29	1.99	6.43	0.98
30	5.78	2.57	5.49	1.86	6.71	2.19	6.29	1.98
Factors								
1	14.02	6.89	59.09	9.31	11.00	7.32	60.21	7.59
2	12.20	4.64	29.51	5.40	10.94	6.31	27.21	5.00
3	23.98	7.65	37.54	7.52	25.47	5.95	41.50	5.01
4	22.22	6.40	54.14	12.00	22.82	5.57	54.14	14.76
5	15.98	5.97	52.51	9.49	19.35	5.13	48.00	9.90
6	21.83	7.24	20.54	3.56	26.35	5.48	19.86	3.81
7	24.02	6.27			24.00	5.70		
8	26.22	5.68			24.94	5.60		
9	13.68	4.55			13.41	3.91		
10	11.05	4.01			10.94	3.99		
11	17.20	6.78			13.53	5.26		
12	8.24	3.67			8.18	3.33		
Areas								
1	88.39	23.96			89.59	23.99		
2	160.41	21.94			172.00	18.15		
3	90.41	22.28			82.00	19.90		
4	108.02	24.22			118.00	19.96		

Scale, Factor, and Area Values--Continued

Scale	School							
	5				6			
	AI (N=18)		OCI (N=15)		AI (N=20)		OCI (N=19)	
	M	SD	M	SD	M	SD	M	SD
1	3.17	1.30	2.73	0.93	3.55	1.69	2.16	1.35
2	5.28	2.08	7.53	1.02	4.80	2.40	6.89	1.59
3	5.50	1.64	7.07	1.84	5.30	1.90	5.84	1.56
4	6.50	2.48	7.33	0.70	5.20	2.04	7.89	0.91
5	1.17	1.07	0.60	0.71	1.25	1.55	0.89	0.91
6	3.61	1.74	4.60	1.89	3.35	1.42	4.58	1.31
7	6.50	2.91	9.27	0.85	6.45	2.25	9.16	1.35
8	5.89	2.54	6.13	1.93	5.70	2.47	6.58	1.76
9	7.94	1.54	6.87	1.45	7.55	1.80	7.26	1.33
10	4.17	2.36	2.33	0.94	3.05	1.47	2.47	1.23
11	3.11	2.64	6.27	2.17	3.10	1.87	6.32	1.78
12	2.78	1.90	4.80	1.90	3.25	1.26	5.32	2.03
13	5.39	2.43	7.20	1.51	5.95	2.16	6.95	1.67
14	1.78	2.12	6.27	2.11	1.45	1.40	5.58	1.35
15	1.50	1.39	3.93	2.14	1.40	1.36	3.26	1.45
16	7.33	2.00	7.87	1.26	8.05	1.88	8.00	1.34
17	6.83	2.11	7.40	1.96	6.85	2.48	7.68	1.69
18	4.56	2.39	5.20	1.64	4.70	2.12	3.84	1.81
19	4.17	1.74	5.93	1.00	3.95	1.63	6.74	1.21
20	6.78	2.53	8.40	1.50	6.85	2.22	8.95	1.28
21	8.39	1.50	9.20	1.28	8.15	2.03	9.21	1.20
22	5.56	3.13	6.13	1.31	5.80	2.54	5.26	1.16
23	3.94	1.84	3.67	1.08	4.60	1.91	3.68	0.98
24	4.94	2.37	6.33	1.01	5.20	2.48	6.26	1.12
25	5.28	2.05	6.53	2.25	4.90	2.14	6.26	2.29
26	5.11	2.49	6.40	2.58	4.60	3.10	6.53	2.09
27	3.28	1.24	6.60	1.67	3.50	1.80	6.63	1.18
28	3.33	1.80	2.40	1.02	4.10	2.02	2.21	0.83
29	6.67	2.49	7.13	0.62	6.15	1.68	7.00	1.52
30	6.28	2.33	6.80	1.47	5.75	2.21	6.47	1.73
Factors								
1	10.56	5.65	64.27	3.97	9.00	4.55	65.53	7.01
2	10.44	3.40	26.07	5.42	9.20	6.02	24.26	4.23
3	23.50	7.69	43.13	5.11	22.10	7.21	42.26	4.11
4	22.83	7.75	54.80	12.77	22.20	7.87	53.32	9.91
5	15.61	6.13	50.60	6.75	15.60	6.34	50.95	8.73
6	23.89	8.41	22.07	2.24	24.20	4.51	23.11	1.77
7	23.39	4.54			23.25	5.73		
8	24.72	5.65			24.65	4.02		
9	10.78	3.57			11.55	3.73		
10	10.44	3.04			9.80	3.60		
11	12.44	5.36			13.50	4.08		
12	7.28	3.30			7.20	4.08		
Areas								
1	82.94	23.07			78.10	28.23		
2	167.44	21.82			167.80	14.08		
3	76.22	17.92			75.70	15.52		
4	109.22	26.21			107.55	25.63		

Scale, Factor, and Area Values--Continued

Scale	School							
	7				8			
	AI (N=17)		OCI (N=15)		AI (N=16)		OCI (N=15)	
	M	SD	M	SD	M	SD	M	SD
1	3.94	1.66	3.20	1.90	3.75	2.17	3.33	2.30
2	4.76	1.80	6.27	1.34	4.56	1.77	7.33	1.01
3	5.53	2.28	5.33	1.81	5.56	2.06	6.40	2.06
4	6.41	2.45	6.60	1.20	7.75	1.68	7.07	2.17
5	2.00	1.97	1.60	1.31	1.56	1.00	1.53	1.41
6	4.47	1.91	4.33	1.62	4.38	2.03	4.47	1.67
7	5.82	2.23	8.40	1.67	7.25	1.89	8.27	1.39
8	6.12	1.64	6.93	2.29	6.00	1.84	6.53	1.54
9	7.82	1.34	5.53	1.20	7.44	1.27	6.53	1.67
10	3.76	1.99	3.07	1.53	3.06	2.16	2.93	1.84
11	3.88	2.42	5.93	2.11	3.56	2.15	6.60	1.54
12	3.18	1.95	5.07	2.21	3.06	1.48	6.13	1.45
13	5.18	1.69	7.20	1.68	6.06	1.39	6.67	1.25
14	1.35	1.28	4.53	2.42	1.56	1.50	6.00	2.16
15	1.65	1.13	2.87	1.71	1.94	1.20	4.07	2.17
16	7.47	2.43	8.20	0.91	7.94	1.56	8.40	1.08
17	6.24	2.31	6.67	1.85	8.19	2.04	8.47	1.45
18	4.53	1.85	4.00	2.00	5.06	1.52	4.80	1.90
19	3.47	2.12	5.67	1.49	4.63	1.69	7.07	1.18
20	6.29	2.47	8.27	1.29	7.63	1.65	9.33	0.70
21	8.12	2.11	8.67	1.58	8.81	0.81	8.07	1.65
22	4.76	2.44	5.93	2.21	5.56	3.00	5.27	1.39
23	4.94	2.07	2.60	1.25	5.81	1.24	3.53	0.88
24	4.65	2.59	5.60	1.45	6.06	2.08	6.27	1.39
25	4.59	1.82	6.07	2.35	5.25	2.36	7.33	2.33
26	4.06	2.41	6.20	2.66	5.38	3.08	7.60	2.06
27	3.18	2.06	6.47	1.15	3.56	0.93	7.33	1.25
28	3.24	2.21	2.53	1.59	4.00	2.06	3.47	1.26
29	6.00	1.78	7.00	1.10	5.69	1.69	6.40	1.50
30	5.29	2.14	6.27	1.91	6.75	1.82	6.80	1.28
Factors								
1	10.65	4.96	60.87	5.62	10.13	5.33	61.47	8.88
2	10.24	5.26	24.80	7.30	10.94	4.29	28.93	6.88
3	20.18	7.15	39.07	5.11	25.56	7.75	41.93	4.68
4	21.35	4.66	49.33	13.65	23.38	4.65	58.67	11.56
5	13.47	5.10	48.80	8.66	17.00	5.78	51.20	6.46
6	21.59	6.06	20.47	2.85	23.38	5.58	22.67	3.18
7	23.59	4.38			24.38	5.36		
8	23.35	5.22			24.75	4.05		
9	9.88	4.52			12.19	3.61		
10	11.35	3.80			13.56	2.34		
11	12.29	5.07			13.69	4.50		
12	7.00	4.45			7.75	2.56		
Areas								
1	75.88	21.78			87.00	24.03		
2	62.47	17.75			167.13	13.87		
3	74.53	20.56			82.06	16.59		
4	100.18	18.11			113.69	21.74		

Scale, Factor, and Area Values--*Continued*

Scale	School							
	9				10			
	AI (N=12)		OCI (N=9)		AI (N=10)		OCI (N=9)	
	M	SD	M	SD	M	SD	M	SD
1	4.17	1.95	2.11	1.10	4.20	1.33	3.00	2.31
2	4.75	1.74	6.44	1.77	5.20	2.14	7.11	1.73
3	5.42	2.75	5.22	1.93	5.30	1.62	6.89	1.45
4	6.25	2.80	5.67	2.00	3.80	3.03	6.33	1.70
5	2.25	1.53	1.44	1.17	2.30	1.85	2.00	1.49
6	5.33	2.36	4.56	1.95	3.00	3.03	4.00	1.05
7	6.67	1.60	8.44	0.96	6.10	2.84	6.78	3.15
8	6.00	1.96	5.67	1.70	6.30	1.73	5.11	2.02
9	7.50	1.55	6.89	0.99	6.40	2.20	5.89	1.59
10	3.67	2.39	2.56	1.42	2.80	2.04	3.22	2.53
11	4.33	2.29	5.11	1.20	2.80	2.23	6.11	1.37
12	4.08	1.55	4.44	1.07	3.40	1.56	6.00	1.41
13	5.92	1.80	6.22	1.87	5.60	1.85	8.00	1.76
14	3.08	2.75	3.67	1.49	1.20	0.60	3.67	2.00
15	1.83	1.82	1.78	1.23	1.40	1.02	3.44	1.77
16	6.75	1.96	7.56	1.07	7.90	2.17	8.11	1.45
17	7.75	1.48	5.11	3.00	6.00	2.32	6.11	3.54
18	5.50	1.55	3.44	1.89	4.40	1.96	4.00	2.00
19	4.25	2.05	6.00	1.33	3.70	1.62	5.78	2.04
20	7.08	1.85	6.89	2.08	6.30	2.33	7.33	2.31
21	8.83	0.90	8.11	1.52	8.60	0.92	7.00	3.33
22	5.42	2.40	5.11	2.02	6.00	2.57	5.89	0.74
23	4.75	2.20	2.78	1.03	4.50	2.42	2.89	0.87
24	4.25	2.74	5.56	1.17	4.70	2.61	6.11	0.99
25	6.08	1.98	4.44	2.22	4.90	1.37	4.56	2.41
26	4.75	2.65	3.78	1.87	3.50	1.69	5.00	2.87
27	4.17	2.11	4.11	1.85	3.00	1.26	6.11	1.91
28	4.42	2.50	2.67	0.67	2.70	1.73	2.56	0.83
29	6.75	2.01	5.44	2.17	5.80	2.40	6.44	1.64
30	6.33	2.46	5.33	1.70	5.50	2.38	5.11	3.07
Factors								
1	12.92	7.32	57.56	6.48	8.20	4.85	57.00	14.00
2	12.08	3.90	21.56	5.01	9.30	5.16	25.22	4.29
3	24.92	6.42	39.22	4.92	19.90	6.33	39.33	7.32
4	23.00	6.11	37.89	13.57	22.60	5.41	44.11	17.45
5	14.42	5.60	45.67	8.37	14.20	4.69	48.44	10.65
6	21.25	5.34	18.11	3.35	24.70	9.04	19.78	4.39
7	24.17	6.12			22.20	5.47		
8	25.75	5.04			21.20	6.46		
9	12.83	4.90			9.40	3.29		
10	11.00	4.73			8.30	4.29		
11	17.08	6.37			11.70	3.95		
12	7.25	3.49			6.50	2.87		
Areas								
1	87.33	22.55			74.20	18.67		
2	159.17	13.06			164.80	23.82		
3	86.83	26.70			65.30	20.02		
4	107.75	21.32			103.60	17.43		

Scale, Factor, And Area Values--Continued

Scale	School							
	11				12			
	AI (N=19)		OCI (N=15)		AI (N=12)		OCI (N=10)	
	M	SD	M	SD	M	SD	M	SD
1	3.84	1.46	2.80	1.76	3.33	1.18	2.40	0.92
2	4.79	2.67	7.80	1.38	4.58	2.14	7.00	1.34
3	4.74	2.07	7.53	1.36	4.92	2.72	7.90	1.30
4	6.79	2.31	8.60	1.58	6.17	2.41	7.20	1.25
5	2.26	1.58	1.47	1.54	1.08	1.19	0.90	0.94
6	4.00	2.05	4.53	1.71	3.83	2.44	3.50	2.25
7	6.89	1.97	8.67	1.14	6.42	1.98	9.00	0.89
8	5.53	1.73	5.27	1.57	5.50	2.22	6.60	0.80
9	7.42	2.01	5.73	1.00	6.92	1.93	6.50	1.20
10	4.53	2.14	2.40	1.14	3.42	1.85	2.30	0.90
11	3.53	2.11	5.67	1.85	4.17	2.27	6.80	1.54
12	2.79	1.51	5.13	1.78	3.25	1.30	6.10	1.92
13	4.89	2.25	7.73	1.34	4.75	2.20	7.10	1.37
14	2.11	1.83	7.53	1.26	1.25	1.53	7.10	1.14
15	1.84	1.69	3.80	2.01	1.67	1.18	3.00	1.26
16	7.79	2.09	8.67	0.60	7.92	1.89	8.60	1.20
17	6.42	2.76	7.20	1.68	6.75	2.71	7.50	1.86
18	5.32	1.87	4.47	2.31	4.50	1.98	3.90	2.02
19	4.11	2.02	7.40	1.45	4.83	1.28	7.00	0.63
20	7.32	1.89	8.40	1.20	7.67	1.70	8.90	0.83
21	9.00	1.03	8.53	1.41	7.58	2.33	9.60	0.80
22	6.21	2.40	6.20	1.17	6.08	2.02	6.30	1.01
23	5.32	2.20	4.27	1.29	5.42	2.25	3.60	1.02
24	5.68	2.47	6.07	1.34	6.00	2.20	6.10	0.83
25	5.37	2.03	6.67	2.02	4.83	1.91	6.90	1.22
26	4.42	3.18	6.33	2.21	4.75	3.19	6.10	1.30
27	3.63	1.27	6.87	1.41	3.17	1.46	6.70	1.19
28	3.68	2.64	2.40	0.95	4.42	2.50	3.00	1.34
29	6.58	2.16	7.47	1.26	6.50	0.96	6.60	0.92
30	5.84	2.35	6.27	1.57	5.67	2.81	6.30	1.27
Factors								
1	12.00	5.53	65.00	5.13	10.50	4.72	65.30	3.38
2	10.74	5.14	29.53	5.34	9.58	4.55	28.10	5.24
3	22.05	8.81	44.20	4.28	22.00	8.89	45.30	3.41
4	21.05	7.21	54.87	11.00	20.50	7.50	53.90	8.84
5	16.32	6.61	49.60	6.59	16.83	5.86	51.00	7.25
6	23.79	5.68	23.07	3.28	24.17	4.06	22.20	1.78
7	23.32	5.30			22.83	5.74		
8	25.00	5.58			25.50	4.86		
9	11.42	4.53			12.42	2.75		
10	12.11	3.91			11.58	3.93		
11	13.89	5.22			13.42	4.31		
12	6.95	3.69			8.92	3.25		
Areas								
1	82.16	28.22			79.42	28.01		
2	166.84	15.24			167.42	17.15		
3	81.37	20.88			82.33	17.03		
4	106.53	26.22			106.33	27.22		

Scale, Factor, and Area Values--Continued

Scale	School							
	13				14			
	AI (N=13)		OCI (N=13)		AI (N=11)		OCI (N=10)	
	M	SD	M	SD	M	SD	M	SD
1	3.92	1.54	3.77	1.80	4.45	1.62	2.70	1.55
2	5.69	2.40	6.46	1.65	5.64	1.92	8.20	0.60
3	5.00	1.47	5.85	2.25	6.18	2.52	5.60	2.11
4	7.77	2.26	6.23	1.48	7.73	1.14	6.70	1.10
5	1.92	1.94	1.15	1.10	2.09	1.93	1.20	1.25
6	3.31	1.86	4.46	2.17	4.55	2.39	4.90	1.14
7	7.38	0.92	7.08	2.73	6.64	2.31	8.20	2.64
8	5.69	2.27	5.31	2.23	5.82	1.64	5.90	1.37
9	8.46	0.84	6.77	0.80	7.45	1.67	6.20	1.08
10	4.23	2.29	2.46	1.39	4.18	2.41	2.20	1.33
11	4.62	2.24	6.38	1.27	5.00	2.30	6.80	1.72
12	3.38	1.98	5.23	1.62	2.64	1.67	4.50	1.36
13	5.54	1.34	6.15	1.75	7.00	1.95	7.10	1.51
14	2.08	1.77	5.00	1.80	2.36	2.42	5.00	2.05
15	2.38	1.64	4.15	2.03	2.36	2.31	4.10	1.92
16	8.08	1.64	7.23	1.53	7.45	1.97	8.00	1.26
17	7.69	2.52	6.69	2.43	8.55	1.44	6.90	2.26
18	4.77	1.80	4.46	1.69	4.73	1.91	4.30	2.05
19	5.00	2.04	6.15	1.46	3.82	1.75	6.40	1.20
20	7.31	1.20	7.08	1.64	7.27	1.42	7.70	1.55
21	8.77	1.19	8.23	1.93	8.82	1.27	9.10	1.04
22	5.08	3.05	4.77	1.80	6.45	1.97	4.60	1.62
23	5.62	1.90	2.92	1.00	5.18	1.59	2.50	1.28
24	5.77	1.97	6.15	1.10	6.09	2.50	6.40	0.80
25	5.23	2.08	5.85	2.98	5.91	1.73	7.10	2.43
26	4.08	2.76	4.77	3.09	6.09	3.03	6.40	2.58
27	4.08	2.09	6.31	1.49	3.73	1.21	5.90	1.76
28	4.38	2.73	3.08	1.27	3.64	2.01	2.30	0.90
29	6.62	1.39	6.54	1.45	6.45	1.92	6.90	1.37
30	6.38	2.62	5.62	2.70	6.64	2.27	6.70	2.19
Factors								
1	13.31	6.22	57.92	8.48	13.91	7.20	62.30	6.12
2	10.31	5.22	25.08	5.38	13.09	6.67	23.60	4.57
3	23.38	8.78	37.85	6.75	27.18	6.44	39.00	7.36
4	23.31	6.80	49.23	15.97	25.09	5.90	53.80	13.54
5	14.92	4.92	45.85	10.88	18.64	5.69	51.40	6.62
6	24.38	4.34	19.46	2.98	23.82	6.36	20.80	2.14
7	24.69	2.64			25.36	5.42		
8	26.77	4.54			24.82	4.67		
9	13.46	5.64			11.18	4.04		
10	13.38	3.63			12.91	2.54		
11	14.62	6.92			13.36	6.03		
12	8.62	3.85			7.36	3.89		
Areas								
1	85.23	25.28			97.91	26.42		
2	167.23	12.87			168.82	23.57		
3	90.15	25.37			83.55	21.78		
4	110.69	15.64			120.09	17.85		

Scale, Factor, and Area Values--Continued

Scale	School							
	15				16			
	AI (N=13)		OCI (N=11)		AI (N=10)		OCI (N=9)	
	M	SD	M	SD	M	SD	M	SD
1	4.31	2.30	2.00	1.04	2.70	1.49	2.44	2.01
2	5.62	2.56	7.55	0.99	5.20	2.44	6.67	2.91
3	6.85	2.18	6.64	1.72	5.20	2.23	6.56	2.41
4	5.23	2.86	7.45	1.72	6.40	1.85	6.89	1.85
5	1.82	1.27	1.09	0.79	2.30	1.85	1.89	2.33
6	4.00	1.18	5.36	1.61	6.20	1.72	5.67	1.89
7	7.15	2.32	9.64	0.64	6.00	2.53	8.56	2.11
8	7.38	2.02	7.27	1.66	5.20	2.64	6.44	1.95
9	8.00	1.84	5.64	1.37	6.90	1.92	6.00	1.05
10	3.46	2.65	2.09	1.08	3.40	2.29	2.89	2.38
11	3.08	1.98	6.73	1.42	4.30	3.23	6.00	2.05
12	2.23	1.42	4.64	1.55	3.80	1.72	5.67	1.49
13	5.69	2.20	7.73	1.21	5.40	1.62	5.44	2.45
14	1.23	1.53	5.00	1.80	2.10	1.92	6.33	2.00
15	1.62	1.00	3.82	1.70	3.00	2.00	3.78	2.39
16	7.15	1.87	8.18	0.94	7.50	1.36	7.56	2.41
17	7.62	2.59	8.36	1.15	5.60	3.75	6.89	3.25
18	4.69	1.54	5.55	1.92	4.50	1.63	4.78	2.15
19	3.62	2.34	6.00	1.65	5.60	2.11	5.56	2.17
20	7.08	2.34	8.82	1.18	6.90	2.21	7.89	2.33
21	8.31	2.09	9.73	0.45	7.80	0.87	8.44	2.45
22	6.85	2.32	5.64	1.37	6.00	2.00	5.33	1.56
23	3.23	2.01	2.91	1.16	5.00	2.00	5.00	1.49
24	6.00	2.54	6.09	1.08	5.30	1.49	5.33	1.33
25	5.00	2.22	7.45	1.92	5.10	2.98	6.78	2.70
26	5.38	3.41	7.27	1.66	4.00	3.46	6.44	2.83
27	2.46	0.93	7.27	1.14	3.60	1.20	6.56	1.50
28	2.54	2.44	2.55	1.30	5.80	2.18	3.56	2.45
29	5.77	2.22	6.82	0.83	6.80	1.60	6.89	1.45
30	6.38	3.03	7.09	1.31	5.40	3.04	6.56	1.95
Factors								
1	9.38	5.50	65.82	4.97	12.80	8.17	60.44	14.73
2	11.46	4.45	26.09	5.21	11.80	3.97	31.22	8.11
3	24.38	9.59	41.73	3.70	20.10	12.51	39.56	7.73
4	25.08	8.23	58.36	9.46	21.20	8.13	55.00	18.13
5	18.23	6.09	54.36	7.40	15.30	4.94	50.00	12.19
6	25.31	5.41	22.36	2.50	21.30	4.63	20.11	4.33
7	26.23	6.76			21.70	6.07		
8	23.38	6.65			26.40	5.52		
9	8.62	4.34			15.00	3.49		
10	8.46	4.36			11.40	3.20		
11	10.69	4.12			16.20	4.24		
12	6.92	4.18			10.80	3.84		
Areas								
1	88.54	28.44			81.20	33.59		
2	174.08	21.90			155.90	16.31		
3	67.46	20.89			92.60	21.63		
4	119.23	30.79			99.60	32.09		

Scale, Factor, and Area Values--Continued

Scale	School 17				School 18			
	AI (N=28)		OIC (N=27)		AI (N=20)		OCI (N=17)	
	M	SD	M	SD	M	SD	M	SD
1	3.43	1.72	3.41	2.11	4.50	1.66	3.12	1.41
2	5.89	2.38	6.07	1.86	6.30	2.19	7.12	1.84
3	5.39	2.29	6.59	2.30	4.35	2.06	6.35	1.71
4	6.36	2.97	6.48	1.77	7.15	2.03	6.29	1.90
5	2.68	2.24	2.11	1.81	2.30	1.08	0.65	0.84
6	4.61	2.08	4.70	1.70	3.95	1.75	4.24	1.86
7	6.14	2.07	8.07	1.88	7.05	2.01	8.32	1.34
8	6.11	2.34	6.33	2.62	5.30	1.94	5.35	1.88
9	7.04	2.20	5.52	1.34	6.95	1.72	8.12	1.13
10	4.18	2.32	2.96	1.82	4.30	2.49	2.35	1.37
11	4.68	2.45	6.33	1.92	4.30	2.30	5.53	1.54
12	4.14	2.05	5.11	1.83	3.70	1.71	3.76	1.99
13	6.18	1.83	6.30	1.70	5.80	1.54	7.47	1.38
14	2.46	2.10	5.74	1.95	2.30	2.26	5.41	2.55
15	2.11	2.04	3.22	1.75	2.00	1.53	3.35	1.71
16	7.04	2.44	8.04	1.14	7.75	1.39	8.29	0.96
17	7.04	2.65	8.96	2.19	8.45	1.36	9.90	1.53
18	5.39	1.88	4.78	2.53	5.15	1.90	2.59	1.65
19	4.61	1.63	6.26	1.40	4.50	2.01	6.92	1.15
20	7.32	1.71	8.78	1.40	7.20	1.75	8.53	1.50
21	8.61	1.50	8.07	1.72	8.60	1.56	8.18	1.79
22	4.93	2.71	5.07	1.51	5.85	2.57	8.53	0.92
23	5.04	2.23	3.37	1.19	5.25	2.07	3.06	1.39
24	5.25	2.26	6.33	1.36	6.45	2.22	6.24	0.91
25	5.54	2.18	5.59	2.10	5.70	2.05	6.88	1.78
26	4.18	3.45	6.11	2.47	6.45	3.07	7.41	2.20
27	4.11	1.80	5.93	2.24	3.75	1.76	6.82	1.62
28	4.29	2.66	2.33	1.22	4.05	2.09	2.35	1.19
29	6.89	1.47	6.67	1.22	6.50	1.72	6.24	0.88
30	6.82	2.12	6.00	2.26	6.95	2.18	6.59	2.61
Factors								
1	13.43	6.99	59.56	9.19	13.40	7.55	61.41	7.11
2	11.93	7.38	27.93	7.76	12.90	4.89	19.71	7.35
3	23.57	8.37	39.56	5.86	27.55	7.07	44.94	3.32
4	25.00	7.16	50.59	14.40	24.85	5.48	55.24	13.36
5	14.36	6.05	47.44	11.98	18.75	6.17	46.94	10.36
6	21.07	6.52	21.59	3.47	23.80	6.29	21.06	3.47
7	23.18	5.68			23.30	5.10		
8	25.54	5.26			24.70	4.42		
9	13.00	4.75			12.30	4.14		
10	11.39	4.35			12.40	3.51		
11	16.29	6.30			15.20	5.87		
12	8.11	3.31			7.90	3.49		
Areas								
1	88.29	29.34			97.45	25.98		
2	157.82	19.45			164.55	19.10		
3	87.75	23.43			85.90	21.10		
4	107.18	23.88			118.25	20.38		

Scale, Factor, and Area Values--Continued

Scale	School							
	19				20			
	AI (N=15)		OCI (N=14)		AI (N=12)		OCI (N=11)	
	M	SD	M	SD	M	SD	M	SD
1	3.87	1.82	3.14	1.46	3.75	0.72	2.55	1.44
2	5.87	2.39	7.79	1.21	5.75	1.88	5.55	1.62
3	4.80	2.32	7.64	1.34	4.92	1.50	5.45	2.19
4	5.40	2.73	7.29	1.03	6.25	2.65	6.00	1.41
5	2.27	1.81	0.79	0.86	2.75	2.01	2.55	1.67
6	4.27	1.98	5.00	2.20	4.25	1.74	4.09	2.35
7	5.80	1.90	9.57	0.49	7.00	1.96	5.64	2.38
8	6.00	1.97	5.21	1.52	6.08	2.18	6.91	1.38
9	6.87	1.89	6.86	1.12	7.50	1.94	4.64	1.49
10	4.40	3.85	2.14	1.55	4.17	2.61	2.27	1.05
11	4.73	3.28	7.36	0.72	4.08	2.25	6.09	1.44
12	3.47	1.09	5.43	1.68	3.83	1.86	4.45	1.30
13	5.27	1.34	7.71	1.03	6.25	2.38	5.45	2.50
14	2.20	1.60	7.43	1.24	2.25	2.52	4.45	1.56
15	2.80	3.17	4.71	1.22	2.50	1.55	4.18	1.99
16	7.73	1.06	8.36	0.90	7.92	1.32	6.91	1.16
17	7.73	3.32	9.36	0.72	6.92	2.78	5.73	2.14
18	4.67	2.05	4.00	2.24	4.25	1.74	4.55	1.72
19	4.87	3.09	7.50	1.12	4.42	1.75	6.18	1.47
20	7.13	1.45	8.79	1.01	6.33	1.70	8.00	1.65
21	8.80	1.17	8.71	1.22	8.83	1.63	7.82	1.95
22	5.00	1.86	6.07	1.16	5.33	2.36	4.64	1.30
23	4.60	1.96	3.86	0.99	4.58	1.71	3.64	1.15
24	6.00	1.75	6.21	1.15	5.42	2.18	6.36	0.98
25	6.20	2.79	7.57	1.35	5.50	2.40	4.82	2.37
26	5.40	3.22	7.43	2.13	3.92	2.63	4.27	2.86
27	4.67	1.40	7.21	1.01	2.75	1.69	4.55	0.66
28	4.07	1.77	2.57	0.90	2.92	2.53	2.55	0.89
29	6.33	2.36	7.57	1.12	6.42	1.66	5.73	1.48
30	6.67	2.24	7.71	1.03	6.50	2.90	4.91	1.73
Factors								
1	14.13	8.88	64.64	4.82	13.00	6.94	57.09	7.68
2	12.73	5.54	27.21	6.60	11.26	4.23	27.55	4.54
3	28.00	9.22	46.00	3.63	22.83	8.97	33.45	6.16
4	23.60	6.90	63.79	7.62	24.58	7.96	43.09	12.18
5	18.40	5.10	53.07	6.41	14.67	5.85	44.91	8.67
6	21.87	5.10	22.29	2.31	23.83	5.76	20.36	2.90
7	22.67	5.25			22.50	3.59		
8	24.40	3.70			23.17	4.41		
9	13.60	3.98			10.08	4.68		
10	10.00	3.90			10.83	3.41		
11	14.40	4.24			13.25	6.14		
12	8.87	4.03			8.08	3.15		
Areas								
1	92.87	29.76			86.33	26.62		
2	159.33	18.42			161.58	17.44		
3	85.40	30.47			78.42	21.36		
4	110.53	31.43			108.42	26.27		

Scale, Factor, and Area Values--Continued

Scale	School							
	21				22			
	AI (N=7)		OCI (N=8)		AI (N=12)		OCI (N=12)	
	M	SD	M	SD	M	SD	M	SD
1	4.57	1.92	2.00	1.58	3.42	1.98	2.00	0.91
2	5.86	2.85	6.75	1.79	5.25	1.59	6.75	1.23
3	6.14	2.03	7.13	1.54	6.17	2.41	6.58	0.95
4	6.00	3.21	6.88	1.27	5.83	3.39	7.50	0.87
5	1.57	0.90	2.75	1.56	1.92	1.50	0.67	0.47
6	4.71	2.55	4.38	2.34	4.00	1.96	3.83	1.34
7	7.00	1.51	8.88	1.27	6.58	1.66	9.42	0.64
8	6.29	1.83	7.63	1.41	6.58	1.89	6.75	1.69
9	8.00	1.07	5.88	1.90	7.25	1.30	6.50	0.76
10	4.43	2.50	2.88	1.76	3.00	2.38	2.42	1.04
11	4.14	2.70	6.28	1.62	2.58	1.61	5.83	1.68
12	4.00	3.34	6.13	1.76	3.00	1.91	5.25	1.42
13	5.00	1.93	7.50	0.71	5.75	1.79	6.67	1.55
14	2.71	2.71	6.88	1.69	1.42	1.61	5.75	1.64
15	2.57	1.40	4.75	2.44	1.42	1.11	3.25	1.48
16	8.14	1.25	8.50	0.71	7.50	2.29	8.33	1.25
17	7.43	1.99	7.13	2.26	7.00	2.45	7.08	2.36
18	5.57	2.56	4.75	2.11	5.33	1.80	4.58	1.89
19	5.43	2.19	6.50	1.22	4.17	1.22	6.33	1.25
20	7.29	1.48	8.75	1.30	6.42	1.71	8.50	1.12
21	7.00	3.07	9.25	1.09	9.08	0.86	9.00	1.00
22	6.00	2.00	6.00	1.12	5.75	2.35	4.83	1.21
23	4.43	2.32	4.25	1.48	4.08	1.93	3.17	1.34
24	5.14	2.03	6.13	0.78	4.75	1.48	6.08	1.11
25	6.29	2.31	6.75	2.05	5.42	2.84	5.83	2.19
26	5.43	3.54	6.88	2.67	5.42	3.23	5.92	2.29
27	5.00	2.00	7.50	1.32	3.17	1.28	7.33	1.37
28	5.00	2.00	3.25	1.30	3.42	2.40	2.25	1.01
29	6.57	2.32	6.25	0.97	5.92	1.55	7.25	0.60
30	7.14	2.53	6.38	2.12	6.67	2.69	6.25	1.42
Factors								
1	13.86	6.96	62.00	4.69	8.42	4.61	65.50	3.04
2	11.43	3.06	32.13	8.67	11.25	5.63	25.17	5.38
3	26.29	9.44	42.88	3.44	24.50	10.04	42.00	3.94
4	24.29	7.13	57.50	14.70	24.50	4.69	51.08	12.20
5	16.57	3.66	53.63	7.31	15.92	4.39	49.33	6.74
6	22.71	6.41	21.75	2.11	23.00	4.88	22.08	2.33
7	26.00	5.07			23.25	4.51		
8	26.86	3.72			23.00	4.43		
9	15.43	5.23			10.75	4.66		
10	10.43	4.78			9.92	4.54		
11	17.29	6.10			13.17	6.30		
12	11.00	4.99			6.50	2.78		
Areas								
1	92.43	25.16			84.33	23.30		
2	162.43	19.23			164.25	15.96		
3	94.86	30.55			71.75	22.54		
4	115.86	19.39			110.92	16.22		

Scale, Factor, and Area Values--Continued

Scale	School							
	23				24			
	AI (N=6)		OCI (N=5)		AI (N=14)		OCI (N=13)	
	M	SD	M	SD	M	SD	M	SD
1	3.33	0.94	1.80	0.98	3.43	1.99	2.23	1.05
2	3.83	1.21	7.60	0.49	4.64	2.52	6.85	2.07
3	6.00	1.29	7.20	1.33	5.21	1.82	6.77	1.53
4	7.67	2.62	7.20	0.40	6.14	1.99	6.77	1.12
5	1.00	1.00	0.60	0.80	1.29	1.44	0.62	0.74
6	3.33	1.89	5.20	1.60	4.43	1.72	2.62	1.60
7	5.83	0.90	9.00	0.63	6.64	1.87	9.00	0.88
8	5.00	1.41	6.40	1.36	5.21	2.27	5.92	1.98
9	7.33	1.60	6.20	0.75	8.07	1.62	6.77	1.31
10	3.50	1.71	2.00	0.63	3.57	1.59	2.54	1.01
11	3.33	0.94	5.60	0.49	3.14	1.85	5.62	1.73
12	3.33	1.37	5.40	1.02	2.36	1.39	4.31	1.59
13	5.50	0.96	6.80	1.17	5.64	2.16	6.38	1.90
14	1.33	1.37	5.00	1.79	1.36	1.72	4.46	2.21
15	2.00	1.15	3.40	0.80	1.50	1.24	2.77	1.48
16	8.67	0.75	8.40	0.49	8.43	1.24	8.85	0.86
17	6.83	1.77	7.20	0.98	7.64	1.95	9.23	2.08
18	4.17	1.46	4.60	0.49	4.57	2.06	4.08	3.23
19	6.33	2.05	6.00	0.89	4.36	1.54	6.46	1.87
20	7.50	1.26	7.80	1.17	6.71	2.58	3.31	2.05
21	9.00	1.15	9.60	0.80	8.50	0.98	8.77	1.37
22	5.17	3.79	4.60	1.20	6.36	2.41	5.38	1.00
23	4.17	0.69	4.20	0.75	4.93	1.79	3.00	1.52
24	5.83	1.57	6.00	0.89	5.50	2.26	5.77	1.31
25	6.17	1.95	7.00	1.10	4.36	1.29	5.92	1.98
26	4.17	1.07	4.80	1.94	4.79	3.03	5.23	2.78
27	4.50	1.26	7.20	1.33	3.64	1.49	6.62	1.44
28	4.50	2.22	3.00	0.89	4.21	2.78	2.46	1.01
29	7.17	1.57	7.40	0.49	6.57	1.84	6.77	1.31
30	5.83	1.77	6.40	1.36	5.64	2.35	6.08	1.38
Factors								
1	12.17	2.79	66.00	1.67	9.57	4.08	64.08	5.18
2	8.50	0.96	26.60	2.73	9.14	2.95	32.15	7.48
3	23.00	4.43	41.40	3.20	22.43	6.63	43.23	3.77
4	20.17	2.27	51.80	4.79	21.14	7.18	47.54	13.25
5	15.17	3.62	51.60	1.36	16.64	4.75	45.54	9.87
6	23.50	4.68	21.00	1.90	24.00	6.07	20.85	3.50
7	24.17	3.24			23.43	4.76		
8	26.50	3.77			25.57	5.46		
9	15.33	4.31			12.21	4.16		
10	11.83	2.85			11.07	2.60		
11	13.33	2.81			12.50	5.45		
12	9.33	2.69			7.36	2.84		
Areas								
1	79.00	5.80			78.93	18.15		
2	168.17	3.34			170.64	16.74		
3	88.50	9.25			78.29	18.60		
4	106.00	5.72			107.64	18.87		

Scale, Factor, and Area Values--Continued

Scale	School							
	25				26			
	AI (N=25)		OCI (N=21)		AI (N=34)		OCI (N=30)	
	M	SD	M	SD	M	SD	M	SD
1	3.20	1.33	2.48	1.71	3.88	2.10	2.73	1.50
2	5.48	1.96	6.62	1.36	5.50	2.25	6.73	1.36
3	4.64	2.50	6.33	1.75	5.76	2.18	6.97	1.52
4	6.08	2.71	7.38	1.73	7.29	2.36	6.97	1.62
5	1.92	1.44	1.71	1.83	2.50	2.16	1.47	1.41
6	4.04	1.68	4.86	1.91	4.15	2.18	4.63	1.80
7	6.88	2.32	7.86	2.25	6.18	2.42	3.57	1.61
8	5.52	2.00	6.29	1.58	6.18	1.56	6.60	1.69
9	7.28	1.97	5.29	1.12	7.59	1.31	6.07	1.31
10	4.16	2.69	5.05	1.94	5.44	3.26	3.77	1.36
11	4.24	2.75	6.71	1.61	5.06	2.33	6.83	1.49
12	3.56	1.65	6.14	1.55	3.35	1.75	5.63	1.38
13	5.92	2.04	6.81	1.92	6.26	1.72	7.33	1.80
14	2.28	2.32	6.33	1.67	2.85	2.13	5.63	1.40
15	1.92	1.38	4.43	1.97	1.88	1.59	4.57	1.82
16	7.44	1.79	8.00	1.51	6.65	2.11	7.77	1.17
17	7.40	2.40	7.76	1.69	7.15	2.41	7.40	1.82
18	4.80	2.33	5.10	1.57	4.59	2.00	4.07	1.77
19	4.08	1.67	6.19	1.47	3.68	1.69	6.57	1.26
20	8.84	2.15	8.05	2.06	6.91	6.12	6.27	1.24
21	2.44	1.20	8.76	1.77	6.74	1.04	6.73	1.29
22	6.60	2.53	4.76	1.60	5.71	2.80	6.07	1.39
23	4.48	2.06	4.24	1.38	4.71	1.98	3.37	0.98
24	5.36	2.22	6.19	1.68	6.35	1.97	6.43	0.92
25	5.20	2.21	6.48	1.92	5.82	1.99	6.77	2.36
26	3.68	2.66	6.24	2.51	5.21	2.74	6.90	1.96
27	3.72	1.69	6.57	1.53	4.41	1.78	6.70	1.46
28	4.76	3.02	2.76	1.89	3.62	2.07	3.43	1.36
29	6.28	1.97	6.81	1.33	6.38	2.00	6.93	1.03
30	5.72	2.09	6.10	1.63	6.74	2.09	6.30	1.32
Factors								
1	12.60	7.85	61.76	10.55	16.24	5.66	61.70	5.45
2	10.08	4.68	31.00	6.57	12.94	5.38	27.53	6.20
3	22.00	6.95	38.43	6.40	24.91	6.43	42.00	5.20
4	22.64	5.43	55.48	11.27	24.65	4.92	55.73	10.48
5	15.64	5.42	51.05	6.09	17.26	5.18	51.33	6.92
6	24.64	6.78	21.62	4.21	23.15	7.08	21.67	2.34
7	21.96	6.19			24.15	4.94		
8	25.16	6.25			24.50	4.96		
9	12.56	5.19			11.71	4.04		
10	10.56	4.21			13.00	3.07		
11	15.40	6.25			13.91	5.94		
12	7.56	2.32			6.82	2.79		
Areas								
1	82.96	23.00			95.00	19.49		
2	164.36	18.47			165.38	18.30		
3	83.84	24.21			84.18	16.87		
4	106.88	22.61			114.12	17.87		

Scale, Factor, and Area Values--Continued

Scale	School							
	27				28			
	AI (N=35)		OCI (N=36)		AI (N=27)		OCI (N=27)	
	M	SD	M	SD	M	SD	M	SD
1	3.60	1.89	3.53	2.10	4.19	1.75	2.89	1.69
2	5.83	2.08	6.19	1.94	6.15	2.27	7.33	1.39
3	5.14	2.32	7.03	1.85	5.33	2.21	7.22	1.73
4	6.77	2.29	6.86	1.53	6.19	2.82	7.19	1.63
5	2.97	2.14	1.97	1.64	2.48	2.04	1.41	1.31
6	3.63	2.10	3.97	1.66	3.96	1.97	5.00	1.92
7	7.03	2.22	7.94	1.86	7.11	1.95	8.70	1.67
8	6.23	2.13	5.97	2.11	6.48	2.18	6.07	2.05
9	7.83	1.50	6.33	1.33	7.15	2.27	5.70	1.24
10	6.06	2.07	3.86	1.47	4.93	2.37	3.26	1.60
11	5.14	2.67	6.22	1.55	4.67	2.79	6.96	1.73
12	3.03	1.80	5.17	1.69	3.30	2.12	5.89	1.83
13	6.23	1.97	6.22	2.38	6.33	1.87	7.15	1.21
14	2.97	2.48	6.06	1.58	2.07	2.07	6.78	1.93
15	3.03	2.02	4.75	1.93	2.19	1.96	5.07	2.00
16	6.80	1.89	7.42	1.21	7.44	1.81	7.63	1.44
17	7.20	2.57	7.14	2.08	7.48	2.67	7.89	1.57
18	4.83	1.95	3.67	1.72	5.19	1.44	3.78	1.52
19	4.49	1.93	6.72	1.66	4.04	1.79	7.11	0.99
20	7.03	2.02	8.17	1.72	6.33	2.19	8.33	1.81
21	8.83	1.16	7.72	1.85	8.59	1.68	8.59	2.02
22	5.57	2.56	6.28	1.30	6.52	2.75	6.04	1.20
23	4.46	2.35	4.00	1.20	4.04	1.73	3.41	1.28
24	6.51	2.20	6.61	1.32	5.89	2.25	6.22	1.20
25	6.14	1.88	6.03	2.48	5.30	2.12	7.11	2.17
26	5.37	3.39	6.00	2.51	5.63	2.95	7.04	2.62
27	4.23	1.46	6.28	1.41	4.22	1.69	6.22	1.85
28	3.86	2.11	3.36	1.84	4.11	2.28	3.37	1.36
29	7.03	1.89	6.75	1.30	6.41	2.16	6.70	1.05
30	6.91	1.84	5.94	2.13	7.26	2.07	6.59	1.73
Factors								
1	17.20	6.22	57.56	8.49	13.85	7.43	60.89	7.96
2	14.57	6.13	27.89	5.92	12.85	5.60	28.93	5.43
3	25.63	7.30	41.72	5.64	25.67	7.31	42.41	4.87
4	25.20	6.14	52.39	12.60	26.22	5.93	58.67	13.61
5	17.46	5.07	46.17	9.88	18.04	6.03	52.11	9.25
6	24.14	6.19	21.64	3.36	24.48	5.13	21.74	3.01
7	23.60	5.14			23.00	6.21		
8	25.74	4.91			24.00	5.55		
9	12.57	4.28			12.37	4.47		
10	11.23	3.56			10.22	3.56		
11	14.69	6.40			14.67	5.54		
12	8.69	3.83			7.63	3.87		
Areas								
1	100.06	20.77			96.63	25.79		
2	163.00	20.55			164.37	20.55		
3	90.11	20.19			82.74	21.62		
4	116.03	20.51			117.41	22.54		

Scale, Factor, and Area Values--Continued

Scale	School							
	29				30			
	AI (N=13)		OCI (N=13)		AI (N=37)		OCI (N=30)	
	M	SD	M	SD	M	SD	M	SD
1	3.62	1.15	2.77	1.62	4.41	1.84	4.03	2.17
2	7.23	2.01	7.46	1.34	5.57	2.01	5.53	2.23
3	6.31	1.73	8.38	1.39	5.70	2.13	5.53	1.78
4	6.62	2.82	7.69	1.20	6.38	2.35	4.77	2.12
5	3.23	2.42	3.31	2.13	3.97	2.03	4.43	1.73
6	4.92	2.30	8.00	1.04	4.97	2.34	5.13	1.71
7	6.77	2.39	7.38	1.60	6.11	1.87	6.47	2.33
8	6.92	1.94	8.15	1.10	5.92	2.25	5.00	2.24
9	7.54	1.74	4.77	1.42	7.00	1.79	4.83	1.51
10	5.31	2.52	3.85	2.03	6.00	2.08	4.67	1.80
11	5.85	2.38	7.85	1.23	5.76	2.62	5.43	1.69
12	3.54	1.91	7.23	1.37	4.19	2.30	4.53	2.01
13	6.31	1.38	8.69	1.32	6.00	2.00	6.63	2.29
14	3.38	3.25	7.69	1.73	3.97	2.65	4.67	1.51
15	2.69	1.68	6.62	1.90	3.43	1.87	3.43	1.41
16	5.92	2.20	6.54	1.39	6.03	2.51	7.13	1.26
17	7.77	2.33	6.62	2.27	7.11	2.22	5.00	2.67
18	4.38	1.15	6.54	1.60	5.49	1.60	4.50	2.17
19	4.23	1.76	6.15	2.07	4.70	2.15	6.10	1.51
20	7.23	1.93	7.31	2.05	6.41	2.01	6.17	2.10
21	8.69	0.72	8.85	1.46	8.16	2.05	5.63	2.56
22	5.69	2.84	4.92	2.02	5.73	2.40	6.37	1.94
23	4.54	2.47	3.54	0.93	4.81	1.57	4.37	1.71
24	7.08	2.30	6.69	1.07	6.73	2.06	5.80	1.25
25	6.38	1.94	7.23	1.58	6.30	2.03	4.23	2.59
26	6.62	2.87	7.00	1.75	5.38	3.04	4.17	2.28
27	3.54	1.34	6.08	0.83	4.19	1.49	3.90	1.97
28	3.31	1.44	4.00	1.30	4.57	2.42	3.27	1.81
29	6.38	1.55	7.46	1.22	6.00	2.13	5.27	1.71
30	6.85	2.18	5.62	2.20	7.03	2.25	4.80	1.83
Factors								
1	17.23	7.46	57.92	8.18	19.16	7.21	45.83	11.01
2	16.62	5.85	37.54	6.17	16.76	6.46	30.83	6.79
3	27.62	7.75	38.15	6.76	25.81	7.63	36.43	6.77
4	27.31	6.03	62.69	10.02	24.51	6.18	40.77	13.54
5	19.38	6.62	60.23	5.42	17.84	5.11	42.03	11.99
6	23.15	5.11	21.69	3.41	21.38	5.53	16.73	4.51
7	24.69	4.84			23.51	4.49		
8	24.46	4.62			23.97	5.56		
9	11.08	3.02			13.46	4.32		
10	11.15	4.75			11.19	3.00		
11	14.62	5.30			18.22	6.36		
12	8.23	2.97			9.97	4.33		
Areas								
1	108.15	24.49			104.08	26.17		
2	162.23	13.68			151.76	18.80		
3	86.77	22.48			95.97	22.11		
4	122.15	19.52			113.05	20.63		

Scale, Factor, and Area Values--Continued

Scale	School							
	31				32			
	AI (N=27)		OCI (N=27)		AI (N=21)		OCI (N=21)	
	M	SD	M	SD	M	SD	M	SD
1	3.89	1.69	2.81	2.06	4.05	1.91	2.33	1.73
2	6.22	2.35	6.74	1.90	5.33	1.86	7.10	1.95
3	5.74	1.95	6.74	1.69	5.57	1.73	6.00	1.51
4	6.48	3.07	7.26	1.94	7.00	2.39	6.05	1.09
5	2.37	2.21	1.52	1.71	2.95	2.46	1.29	1.55
6	4.22	1.83	6.04	1.50	4.33	2.40	5.19	3.01
7	6.93	2.02	7.85	2.01	6.38	2.32	8.52	1.89
8	6.44	2.01	6.33	2.14	5.71	1.67	6.29	1.16
9	7.70	1.67	5.59	1.79	6.95	1.79	5.76	1.38
10	4.78	2.50	3.48	2.10	4.24	2.60	3.00	1.98
11	4.59	2.74	6.93	1.51	4.86	2.82	5.81	2.23
12	3.30	1.67	4.89	1.91	3.48	2.08	4.33	1.43
13	6.41	2.06	6.82	1.66	7.05	1.50	7.19	1.71
14	2.81	2.24	6.96	1.77	2.62	2.32	4.86	1.39
15	2.22	1.89	5.11	1.79	2.38	1.96	3.86	1.25
16	7.19	2.24	7.41	1.10	6.14	2.83	7.57	1.26
17	7.44	2.51	7.70	1.44	8.24	2.07	6.71	1.64
18	4.44	1.64	5.07	2.18	4.29	2.23	3.62	1.59
19	4.07	2.26	6.74	1.58	3.90	2.37	5.95	1.46
20	6.89	1.93	8.11	1.42	7.00	1.88	8.00	1.48
21	8.85	1.24	8.15	1.74	8.10	3.02	8.57	1.99
22	6.22	2.60	5.70	1.51	5.48	2.89	5.19	1.14
23	4.70	2.37	4.30	1.38	4.81	2.24	3.62	1.56
24	6.04	2.30	6.04	1.07	6.43	1.50	6.14	1.36
25	5.37	1.79	7.11	2.28	5.95	2.28	6.10	2.09
26	5.74	2.63	7.33	1.91	5.19	3.08	5.71	2.35
27	3.81	1.52	6.56	1.37	4.24	1.87	5.76	1.31
28	4.11	2.17	3.19	1.49	4.19	2.38	2.90	1.44
29	6.19	1.39	6.56	1.83	6.10	1.90	5.95	1.65
30	6.41	3.57	6.30	1.78	6.90	2.74	5.86	1.98
Factors								
1	14.41	7.27	59.67	9.88	14.10	7.64	59.52	9.26
2	13.15	6.24	30.33	7.08	14.38	6.59	24.86	5.99
3	24.96	6.30	40.04	5.96	26.29	7.65	39.00	6.35
4	25.48	7.29	60.04	9.80	25.00	4.63	49.86	10.72
5	18.00	5.62	51.22	8.95	17.10	4.09	49.43	8.77
6	24.48	5.95	21.41	3.35	23.24	7.09	20.19	3.00
7	24.22	5.07			23.57	4.60		
8	24.89	4.84			24.24	5.45		
9	12.00	3.80			12.33	4.87		
10	11.19	4.55			11.81	3.83		
11	14.67	5.35			14.57	6.93		
12	7.44	3.84			8.19	4.71		
Areas								
1	96.00	21.83			96.86	22.89		
2	166.33	21.41			161.00	22.44		
3	84.59	19.02			85.24	24.70		
4	117.15	22.58			115.19	15.95		

Scale, Factor, and Area Values--Continued

Scale	School							
	33				34			
	AI (N=20)		OCI (N=20)		AI (N=25)		OCI (N=23)	
	M	SD	M	SD	M	SD	M	SD
1	4.25	1.89	4.65	2.15	3.48	2.04	1.70	1.08
2	4.85	2.13	5.70	1.95	5.16	2.38	6.48	1.28
3	5.35	1.93	5.90	2.26	4.80	2.06	5.52	1.84
4	6.00	2.61	6.50	1.63	5.92	3.15	6.65	1.17
5	2.80	2.01	2.55	1.77	2.20	2.19	1.74	1.80
6	5.10	2.19	4.05	1.53	4.04	2.32	4.17	1.55
7	5.40	2.11	5.90	2.64	6.08	2.24	7.26	2.38
8	6.35	1.71	5.35	1.90	5.12	2.35	6.70	1.57
9	7.30	1.45	5.25	1.37	7.48	1.20	5.30	1.30
10	4.75	2.59	3.85	1.96	4.28	2.38	2.13	1.45
11	5.40	2.58	6.20	1.66	4.48	2.50	6.22	1.47
12	3.35	1.42	5.60	1.59	3.72	2.49	5.13	1.57
13	5.90	1.37	5.05	1.83	5.92	2.45	6.74	1.89
14	2.95	2.65	5.40	1.83	2.52	2.17	5.91	1.61
15	3.25	2.21	4.50	2.18	2.60	2.25	4.91	2.02
16	7.15	2.33	7.60	1.74	7.00	1.67	7.09	1.72
17	7.00	2.12	6.80	1.99	7.40	1.94	7.30	1.54
18	5.10	2.21	4.15	1.71	5.20	2.51	4.91	1.56
19	4.25	2.02	6.55	1.86	4.64	1.85	5.30	1.54
20	6.75	1.97	7.95	1.53	6.60	2.00	7.87	1.90
21	7.60	2.37	7.05	2.33	8.92	1.13	9.30	0.95
22	4.40	3.04	5.85	1.59	4.84	2.71	4.04	1.68
23	5.35	1.90	3.85	1.11	4.80	2.06	4.04	1.40
24	5.55	2.27	6.40	1.50	6.00	2.32	5.98	1.12
25	5.60	1.85	5.30	2.12	5.40	2.00	5.91	2.36
26	4.80	2.62	5.40	2.15	5.24	2.89	5.43	2.34
27	3.60	1.28	5.05	1.47	4.20	1.77	5.78	1.47
28	3.95	2.36	3.50	1.69	3.84	2.52	3.09	0.97
29	5.30	1.52	6.20	1.50	6.24	2.12	6.52	1.10
30	6.15	1.93	5.20	1.96	6.60	2.17	6.35	1.49
Factors								
1	16.35	8.52	54.25	9.28	13.88	6.92	61.87	6.84
2	13.70	6.08	29.80	6.47	13.04	5.67	29.52	4.74
3	23.55	6.33	37.05	7.76	24.64	7.01	34.52	7.26
4	23.25	4.79	47.90	11.44	22.20	7.02	52.00	11.18
5	14.75	5.03	42.50	9.03	16.08	5.47	50.09	6.31
6	19.80	6.58	20.85	3.85	21.68	7.15	20.48	2.95
7	23.65	4.83			22.36	4.84		
8	23.30	4.50			24.16	5.37		
9	11.80	3.87			12.68	4.81		
10	11.35	3.81			10.72	4.69		
11	15.35	6.13			15.28	7.07		
12	9.90	4.40			8.32	4.06		
Areas								
1	91.60	19.51			90.44	26.20		
2	152.35	19.43			157.64	18.93		
3	88.05	24.37			85.04	22.05		
4	104.80	18.12			107.56	22.15		

Scale, Factor, and Area Values--Continued

Scale	School							
	35				36			
	AI (N=31)		OCI (N=28)		AI (N=23)		OCI (N=20)	
	M	SD	M	SD	M	SD	M	SD
1	3.26	1.80	3.00	1.65	3.43	1.38	2.75	2.05
2	5.71	2.13	6.00	2.41	5.57	2.79	6.80	1.83
3	5.03	2.51	5.61	2.16	5.48	1.81	6.35	2.22
4	5.77	2.51	6.79	1.72	7.00	2.62	6.20	2.32
5	2.68	1.97	2.46	1.76	2.43	1.66	1.35	1.15
6	4.00	1.81	4.68	1.65	5.26	1.70	4.10	1.81
7	6.48	2.18	6.18	2.88	5.70	2.16	7.45	2.46
8	6.13	1.98	5.93	2.28	6.00	1.67	5.70	2.37
9	6.58	2.38	5.75	1.74	6.91	1.95	5.70	1.38
10	4.90	2.16	3.39	1.84	4.65	2.31	2.55	1.43
11	4.61	2.56	6.32	1.77	4.74	2.54	6.15	1.93
12	3.00	1.74	4.86	1.66	3.30	2.01	5.40	1.96
13	5.61	1.64	5.61	2.79	6.26	1.77	6.45	2.01
14	3.06	2.37	6.04	1.50	2.74	2.15	4.80	2.25
15	2.68	1.80	3.86	2.26	2.13	1.87	4.65	1.59
16	7.13	2.66	7.07	1.41	6.87	2.19	7.90	1.09
17	7.55	2.24	6.79	2.38	6.91	2.98	7.65	2.13
18	5.23	2.18	4.46	1.80	5.17	1.81	3.85	2.20
19	4.65	2.04	6.79	1.72	3.78	1.91	6.90	1.34
20	6.39	2.72	7.75	2.06	6.13	2.23	7.85	2.39
21	9.00	1.02	7.82	1.98	8.35	1.83	8.00	2.21
22	6.06	2.76	4.86	1.64	4.83	3.16	5.70	1.71
23	4.90	2.53	3.89	1.11	5.43	1.95	3.65	1.49
24	6.26	1.83	6.50	1.35	6.22	2.28	6.05	1.16
25	5.52	1.86	6.39	2.78	5.43	2.36	6.45	2.91
26	4.90	2.54	5.68	2.79	5.39	3.68	6.10	2.43
27	3.65	1.88	6.11	1.76	3.61	1.88	5.60	2.06
28	3.77	2.22	3.29	1.51	3.91	1.95	2.90	1.09
29	5.90	2.01	5.93	1.79	5.91	2.32	6.35	1.96
30	6.68	1.96	5.46	2.47	6.39	2.97	6.40	2.27
Factors								
1	15.26	7.18	56.50	10.17	14.26	7.14	59.65	10.06
2	13.13	5.64	29.25	6.22	13.09	6.51	26.25	6.15
3	24.65	5.76	36.25	8.15	24.13	10.74	40.00	6.36
4	24.13	5.79	51.32	15.11	24.22	7.75	51.90	15.38
5	17.23	4.91	45.86	12.39	16.43	6.11	48.25	12.34
6	23.32	6.03	21.04	3.92	20.09	5.62	20.10	4.50
7	21.26	7.12			21.96	5.31		
8	22.65	6.14			22.87	6.15		
9	12.06	4.35			11.30	4.43		
10	10.68	4.25			12.43	3.56		
11	15.06	6.03			15.13	5.86		
12	8.32	3.37			7.57	3.67		
Areas								
1	94.39	19.92			92.13	33.88		
2	157.94	24.14			155.57	18.78		
3	64.03	21.87			83.57	22.47		
4	110.58	19.72			106.83	27.64		

Scale, Factor, and Area Values--Continued

Scale	School							
	37				38			
	AI (N=38)		OCI (N=40)		AI (N=50)		OCI (N=46)	
	M	SD	M	SD	M	SD	M	SD
1	3.66	1.67	3.93	1.98	3.82	1.92	3.28	1.85
2	5.84	2.77	5.40	1.88	6.14	2.44	6.74	1.77
3	4.84	2.22	4.40	2.39	5.16	2.25	6.26	2.30
4	6.00	2.90	5.78	2.23	6.94	2.40	5.87	1.55
5	3.84	2.53	3.48	2.18	3.52	1.99	3.33	2.20
6	5.37	2.16	3.80	1.47	4.14	2.08	4.65	1.66
7	6.03	2.41	4.58	3.05	6.76	2.19	7.37	2.55
8	6.00	2.16	5.45	2.25	6.02	2.04	6.11	2.16
9	6.11	2.26	4.75	1.50	7.14	1.91	4.96	1.50
10	5.58	2.00	3.93	1.95	5.88	2.25	4.65	2.41
11	5.71	2.14	5.65	2.15	5.54	2.69	6.46	1.80
12	3.84	2.31	4.63	1.70	3.92	1.99	5.17	1.70
13	5.95	1.88	5.43	2.51	6.12	1.75	6.57	2.05
14	4.16	2.86	4.83	2.26	3.50	2.58	5.83	1.99
15	3.47	1.90	4.38	2.11	2.92	2.72	4.72	2.28
16	6.00	2.22	6.23	1.84	6.96	2.31	7.65	1.11
17	7.21	2.07	6.18	2.44	7.44	2.33	6.98	2.14
18	5.55	2.39	4.58	1.73	5.22	2.09	4.17	1.81
19	4.68	1.97	4.90	1.92	4.58	1.96	7.15	1.57
20	6.26	2.22	6.50	2.10	6.66	2.25	7.35	2.12
21	8.34	1.54	6.50	2.45	8.48	1.53	6.89	2.23
22	4.87	3.05	4.03	1.64	5.44	2.95	5.70	1.63
23	4.97	2.53	4.23	1.92	5.64	2.22	3.78	1.91
24	6.08	2.44	5.90	1.67	6.60	2.24	6.33	1.23
25	5.82	2.01	4.90	2.44	5.58	2.12	6.28	2.98
26	4.55	2.75	4.45	2.47	4.68	3.31	5.80	2.62
27	3.82	1.85	4.95	1.70	3.70	1.53	6.04	1.60
28	4.32	2.51	4.00	2.01	4.50	2.81	4.26	1.66
29	5.92	1.90	5.13	1.91	6.54	1.78	5.72	1.73
30	6.92	2.30	4.70	2.30	6.92	1.92	5.65	2.59
Factors								
1	18.92	6.47	48.80	12.45	17.84	7.94	52.22	11.58
2	15.87	5.69	30.98	7.86	14.16	6.77	31.59	6.47
3	24.50	6.59	28.88	9.14	24.62	7.36	39.09	7.83
4	24.71	6.62	43.83	14.43	25.20	6.23	52.41	15.57
5	15.50	5.40	41.13	11.34	16.72	6.11	48.07	10.94
6	19.97	6.44	18.18	4.74	22.84	6.14	19.54	3.72
7	20.87	5.83			22.78	5.64		
8	22.61	5.21			24.84	5.69		
9	12.82	5.33			12.78	5.05		
10	10.97	4.69			12.58	3.73		
11	17.87	7.93			17.14	6.99		
12	9.82	3.80			9.02	4.67		
Areas								
1	99.50	21.05			98.54	26.94		
2	145.39	22.53			156.86	19.18		
3	93.00	24.79			94.20	25.50		
4	105.55	21.52			112.16	21.83		

Scale, Factor, and Area Values--Continued

Scale	School 39				School 40			
	AI (N=86)		OCI (N=78)		AI (N=36)		OCI (N=30)	
	M	SD	M	SD	M	SD	M	SD
1	3.43	1.67	3.44	1.85	3.86	1.86	3.57	2.16
2	5.87	2.55	6.32	1.83	6.47	2.14	5.60	1.96
3	5.09	2.07	5.31	2.20	5.11	2.49	5.50	1.82
4	6.01	2.59	7.09	1.80	6.47	3.07	6.37	1.92
5	3.47	2.45	2.33	1.66	3.42	2.28	3.13	1.80
6	4.60	2.37	4.91	1.50	4.31	2.21	4.40	1.78
7	6.72	2.21	6.18	2.32	6.44	2.22	5.93	2.78
8	6.20	2.12	6.55	2.01	6.50	2.08	5.57	1.86
9	6.62	2.03	4.76	1.72	7.19	1.82	4.87	1.54
10	5.30	2.27	3.17	1.78	5.86	2.19	3.63	1.68
11	5.19	2.73	6.53	1.61	6.00	2.44	6.23	1.48
12	3.33	2.18	5.38	1.56	3.42	1.42	4.97	1.99
13	6.20	1.72	6.47	1.97	6.42	1.64	6.23	2.28
14	3.35	2.67	6.13	1.92	3.97	2.36	5.37	1.78
15	2.72	2.34	4.85	2.00	3.33	2.27	4.53	1.94
16	7.05	1.87	7.18	1.33	6.44	2.55	6.40	1.72
17	7.02	2.44	7.41	1.98	7.69	2.04	6.77	1.99
18	5.02	2.28	4.10	1.86	5.08	2.06	4.90	1.83
19	3.73	2.00	5.72	1.90	4.08	1.62	5.63	1.92
20	6.02	2.24	7.42	1.84	6.39	2.07	6.93	2.19
21	8.51	1.90	8.03	1.84	8.39	1.67	7.53	2.35
22	5.20	2.71	5.23	1.89	5.75	2.76	4.40	1.47
23	4.63	2.37	4.10	1.63	5.33	1.94	3.73	1.63
24	5.88	2.51	6.46	1.13	6.50	2.65	5.90	1.51
25	5.26	2.27	6.42	2.32	5.92	1.93	6.07	2.28
26	5.21	3.11	6.71	2.16	5.64	3.37	5.40	2.43
27	3.66	1.83	6.04	1.28	4.11	1.61	5.43	1.82
28	3.56	2.47	3.06	1.41	4.19	2.39	4.10	1.83
29	5.99	1.80	6.35	1.38	5.89	2.12	5.30	1.79
30	6.55	2.46	6.15	2.01	7.86	2.15	5.97	1.85
Factors								
1	16.56	7.74	57.13	8.91	19.17	7.50	52.20	12.04
2	14.35	6.37	30.36	6.91	15.94	6.60	31.33	5.49
3	24.03	7.64	34.37	7.71	27.11	7.39	32.73	8.27
4	24.81	6.53	55.14	11.44	27.25	4.93	50.17	12.29
5	16.29	6.24	48.88	9.22	17.89	6.71	45.40	9.85
6	22.29	6.93	20.97	3.43	22.81	7.03	19.20	4.00
7	21.16	5.15			22.56	5.54		
8	22.19	5.30			23.67	5.42		
9	10.95	4.52			12.39	4.02		
10	10.64	4.28			11.81	4.26		
11	15.26	6.62			16.67	5.59		
12	7.94	4.92			9.03	4.00		
Areas								
1	96.05	26.04			107.36	25.72		
2	154.38	22.38			155.28	22.55		
3	83.53	24.96			92.72	23.92		
4	108.59	23.97			117.61	23.62		

Scale, Factor, and Area Values--Continued

Scale	School							
	41				42		43	
	AI (N=37)		OCI (N=33)		OCI (N=21)		OCI (N=22)	
	M	SD	M	SD	M	SD	M	SD
1	3.76	1.92	2.70	1.70	2.90	2.00	2.55	1.30
2	6.03	2.32	6.48	1.42	5.67	1.64	6.41	1.92
3	5.62	2.27	5.97	2.24	5.52	1.84	5.50	1.90
4	6.30	2.60	6.15	1.50	5.81	1.94	6.86	1.58
5	2.70	2.38	2.03	1.68	2.05	1.81	1.55	1.30
6	4.57	2.31	3.52	1.52	3.33	1.75	4.45	1.88
7	6.68	1.86	6.64	2.77	6.29	2.57	7.18	2.39
8	6.65	2.08	5.85	2.03	6.05	2.32	6.50	2.39
9	7.57	1.85	5.79	1.79	5.14	1.42	6.05	1.33
10	5.70	2.50	2.42	1.50	2.95	1.05	2.23	1.20
11	5.59	3.09	6.61	1.67	6.62	1.76	6.68	1.63
12	3.41	2.26	4.39	1.58	4.81	2.08	5.14	1.63
13	6.59	1.85	5.91	2.14	5.62	2.40	6.86	1.42
14	3.84	2.68	5.21	1.51	4.81	2.30	6.05	1.58
15	3.08	2.57	4.30	1.49	3.57	2.08	4.18	2.12
16	6.51	2.37	6.79	1.53	7.76	1.15	7.64	1.07
17	8.24	1.91	7.06	1.63	7.52	2.50	7.64	2.44
18	4.89	1.90	3.33	1.68	4.10	1.72	4.50	2.15
19	3.78	2.36	5.79	1.39	6.29	1.39	6.18	1.37
20	6.81	1.90	7.18	2.02	7.62	1.89	8.55	1.34
21	8.68	1.43	8.12	2.04	8.29	1.98	8.68	1.26
22	6.03	2.89	3.52	1.88	4.24	1.38	4.91	1.70
23	4.51	2.34	2.94	1.54	3.29	1.28	3.36	1.37
24	6.16	2.20	5.24	0.99	6.24	1.23	5.95	1.26
25	6.14	2.04	6.18	2.32	5.67	2.03	6.14	2.60
26	5.65	3.09	5.91	2.59	5.10	3.02	6.32	2.49
27	3.95	1.49	4.91	1.62	4.57	1.76	6.09	1.83
28	3.19	2.12	2.94	1.20	2.62	0.95	2.77	1.44
29	6.30	2.05	6.12	1.32	6.00	1.80	6.14	1.29
30	7.46	1.99	6.18	1.71	5.19	2.01	6.00	1.65
Factors								
1	18.22	9.05	57.21	9.19	57.57	10.73	61.55	5.64
2	14.92	7.34	25.06	6.13	26.52	6.96	27.32	7.13
3	27.49	6.10	34.48	8.00	35.24	7.06	37.45	7.30
4	26.73	6.32	49.88	10.43	46.38	19.21	53.55	18.22
5	17.84	5.01	46.24	9.05	44.38	11.43	49.50	9.30
6	23.24	6.37	18.58	3.20	19.67	4.22	21.36	3.18
7	23.76	5.80						
8	23.86	5.64						
9	10.92	4.90						
10	10.81	4.11						
11	15.32	7.12						
12	8.19	4.25						
Areas								
1	105.19	24.93						
2	160.27	25.09						
3	87.32	26.02						
4	119.05	17.77						

APPENDIX B

ORGANIZATIONAL CLIMATE INDEX--FORM 662

ORGANIZATIONAL CLIMATE INDEX

Form 662

Adapted by Carl R. Steinhoff

There are 300 statements in this booklet. They are statements which describe the environment in which people work. The statements refer to daily activities, to rules and regulations and policies, to typical interests and projects, to features of the physical environment, etc. The statements may or may not be characteristic of your situation because organizations differ from one another in many ways. You are to decide which statements are characteristic of your institution and which are not. Your answers should tell us what you believe the institution is like rather than what you might personally prefer. You won't know the answer to many of these statements, because there may not be any really definite information on which to base your answer. Your responses will simply mean that in your opinion the statement is probably true or probably false about your organization.

Do not omit any item.

DIRECTIONS

On the special answer sheet print your name, and the other information requested. Then, as you read each statement in the booklet, blacken space

T -- when you think the statement is generally TRUE or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.

F -- when you think the statement is generally FALSE or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

Be sure to fill in the whole space between the dotted lines on the answer sheet with a heavy black mark, using the special pencil provided to you.

YOU MUST ANSWER EVERY ITEM.

Work rapidly, going through the entire list of statements as quickly as you can. Please do not make any marks in this booklet.

Copyright 1958, 1960, 1961, 1962
by George G. Stern
Distributed by Psychological Research Center
Syracuse University

T - TRUE.	Generally TRUE or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.
F - FALSE.	Generally FALSE or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

1. Criticism of administrative policies and practices is encouraged.
2. The competition for recognition is intense.
3. Your errors and failures are talked about freely so that others may learn from them.
4. There are no organized social groups or activities.
5. People treat the furnishings and equipment with care here.
6. The people here represent a great variety in nationality, religion, and social status.
7. Work programs are well organized and progress systematically from week to week.
8. Administrators encourage and provoke lively discussion about policy matters.
9. Important people here are always addressed as Mr., Mrs., or Sir.
10. There is a recognized group of leaders in the membership of this organization.
11. Knowledge of national and international affairs is encouraged.
12. People here express their feelings openly and enthusiastically.
13. Discussions get quite heated, with a lot of display of feeling.
14. Organization activities are given a lot of space in the local newspapers.
15. People here hope to achieve future fame and recognition.
16. There is an extensive program of athletic activities.
17. People here are concerned about social and political problems.
18. Policy changes occur slowly and only after considerable deliberation.
19. Receptions and teas are seldom given here.
20. New people find others eager to help them get started.

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21. No one needs to be afraid of expressing extreme or unpopular viewpoints here.
22. Formal seating arrangements are quite common here for all sorts of group meetings.
23. People really look forward to their vacations.
24. It's important socially here to be in the right club or group.
25. Books dealing with psychological problems or personal values are widely read and discussed.
26. This organization uses statistical analysis to a great extent.
27. Much has been done with pictures, draperies, colors, and decoration to make the place where you work pleasing to the eye.
28. Most of the people who work here are young and unmarried.
29. People often ask each other for help in their work.
30. There is a lot of emphasis on preparing for advanced work.
31. It's necessary to be polite under all circumstances in order to stay out of trouble here.
32. It is fairly easy to keep up here without working too hard.
33. Most activities are closely supervised.
34. There is a lot of group spirit.
35. Most people here seem to be especially considerate of others.
36. Policies and methods of operation in this organization are frequently revised.
37. The administration has clearly explained the goals and the purposes of the organization to everyone.
38. When people disagree with an administrative decision, they work to get it changed.
39. People here make every effort to please the administration.
40. Organization elections generate strong feeling.

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41. The expression of strong personal belief is pretty rare around here.
42. People here get very tense when they are being graded or rated.
43. People here put a great deal of energy into everything they do.
44. The presentation of special events is given a great deal of publicity.
45. People here like to speculate on unusual opportunities for quick advancement.

46. The daily schedule includes some rough physical activities.
47. The organization promotes many opportunities for people to improve their knowledge of important works of art, music, and drama.
48. People here often change the way they do things for no particular reason.
49. People take a great deal of pride in their personal appearance.
50. People here usually send each other cards or little gifts on special occasions.

51. One of the values most stressed here is open-mindedness.
52. The administration expects that there will be no deviation from established policy, no matter what the circumstance.
53. Officially sponsored social events get a lot of enthusiasm and support.
54. Practical things come first here.
55. The administration would welcome a guest lecture by an outstanding philosopher or theologian.

56. Evaluation of the work of personnel is not carried on scientifically.
57. Music is never allowed when people are working.
58. People who work here and who have friends of the opposite sex show their affections openly.
59. People like it here because of the benefits they get.
60. This organization is outstanding for the emphasis and support it gives to pure scholarship.

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61. People are seldom kept waiting when they have appointments with administrators.
62. Advancement requires much intensive study and preparation in addition to the required duties.
63. Everyone is expected to attend meetings regardless of other commitments.
64. There are many opportunities for people to get together in planned social activities, after hours.
65. People have to show caution and self control in their behavior at all times.

66. The people here come from all parts of the country.
67. Many people who do not adjust well to this place in the beginning, eventually work out their problems.
68. People here really play to win, not just for the fun of the game.
69. The staff do not usually address each other by their first names.
70. The administration expects people to report violations of rules and regulations.

71. Daily newspapers are widely read.
72. The way people feel around here is always pretty evident.
73. Few people here would ever work to the point of exhaustion.
74. Everyone is given the opportunity to develop skill in organizing and directing the work of others.
75. The future goals of the organization emphasize security, happiness, and good citizenship.

76. Fire drills and civil defense drills are held regularly.
77. A guest lecture by an outstanding literary critic, sponsored by the organization, would be poorly attended.
78. Many social activities are unplanned and spontaneous.
79. People are expected to have a great deal of social grace and polish.
80. People here mind their own business.

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81. The administration interprets regulations in an understanding manner.
82. Neat reports are expected at all times.
83. People go to lots of parties and other social activities.
84. The emphasis here is on the abstract rather than the concrete and tangible.
85. There are many facilities and opportunities for individual creative activity.

86. A lecture by an outstanding scientist would be poorly attended.
87. Uniformity of decoration is the policy here, with no deviation from the norm.
88. Most people here love to dance.
89. People who try to "help out" are likely to be regarded as nuisances.
90. Few people here are stimulated by intellectual activities or problems.

91. New people are most likely to get the blame when something goes wrong.
92. Personality and pull are needed most in order to get ahead around here.
93. Most projects are done in groups rather than by individuals.
94. People have little to say to one another here.
95. The executives of this organization are often the butt of jokes.

96. Everyone in this organization has pretty much the same attitudes, opinions, and beliefs.
97. Activities in clubs and organizations are planned carefully.
98. Channels for expressing complaints are readily accessible.
99. People dislike voicing "different" opinions.
100. Personal rivalries are fairly common in this organization.

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101. Most people here are not very interested in what goes on in the local government of the community.
102. There is a lot of excitement and restlessness just before the holidays.
103. There is so much to do here that people are busy all the time.
104. Most people here tend to be shy in groups.
105. Most people here are concerned with the present rather than the future.

106. Risk-taking in the physical sense is part of the day-to-day program.
107. The administration doesn't really approve extensive post-graduate work.
108. Quick decisions and action are not characteristic of this organization.
109. Good manners and making a good impression are important here.
110. The administration strongly supports community fund drives and charities.

111. Criticism is taken as a personal affront in this organization.
112. Neat desks are the rule rather than the exception.
113. There is little thought of work during the weekend.
114. People here are more interested in specialization rather than a general knowledge of broad fields.
115. Modern art and music get little attention here.

116. Few people in this organization have good backgrounds in science.
117. This is mainly a meat and potatoes community, with little interest in gourmets or anything unusual.
118. The community doesn't interfere in the dating habits of people here.
119. The administration encourages independent and individualistic attitudes.
120. Mathematical puzzles, anagrams, and other mental games are popular here.

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121. New arrivals are expected to stay in the background.
122. People will have it in for you if you work too hard.
123. Your work is always being watched.
124. Everyone is helped to get acquainted.
125. A lot of people in this place walk around with a chip on their shoulder.
126. There are many new faces here every year.
127. All work assignments are laid out well in advance, so that people can plan their own schedules accordingly.
128. People in this organization thrive on difficulty--the tougher things get, the harder they work.
129. People can feel free to disagree with the administration openly.
130. The important people in this organization expect others to show proper respect for them.
131. Male-female relationships here are simple and rarely become really romantically involved.
132. There are very few issues here which arouse much excitement or feeling.
133. Leadership here is dull and uninspired.
134. There are a good many colorful and controversial figures here.
135. Policy in the organization supports the practical and the realistic.
136. People here are sometimes reminded to take preventive measures against illness.
137. People who usually talk about music, theater or other art forms consistently are likely to be regarded as odd.
138. People here often start projects without trying to decide in advance how they will develop or where they may end.
139. Individuals who are not properly groomed are likely to have this called to their attention.
140. The administration is always willing to lend an ear to people who have difficult problems to work out.

T - TRUE,	Generally TRUE or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.
F - FALSE.	Generally FALSE or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

141. Sound reasoning is rewarded here.
142. The administration takes attendance at meetings.
143. No one takes their work too seriously here.
144. Family, social, and financial status are necessary elements for advancement or success.
145. People here are not interested in deep philosophical or ethical matters.

146. Work based on research is prized in this organization.
147. Personnel are allowed to dress for personal comfort rather than for appearance.
148. The administration does not concern itself with the dating habits of people here.
149. People here have a great deal of freedom to do as they wish within reasonable limits.
150. An intellectual image is most important to this organization.

151. No one is expected to suffer in silence if some regulation happens to create a personal hardship.
152. Good work is really recognized around here.
153. Not many people here spend time making excuses for failure.
154. There are few opportunities for informal talk with administrators.
155. When people dislike policy, they let the administration know it in no uncertain terms.

156. Most of the people in this organization have been here for quite some time.
157. Administrators are practical and efficient in the way they dispatch their business.
158. People avoid direct clashes with the administration at all costs.
159. Many people in this organization will support a project even when they know they will be criticized for it.
160. There are no favorites in this organization; everyone gets treated alike.

T - TRUE.	Generally TRUE or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.
F - FALSE.	Generally FALSE or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

161. Strong positions are taken here regarding civil liberties and minority groups.
162. Open displays of emotion have no place in this organization.
163. People here can get so absorbed in their work they often lose all sense of time or personal comfort.
164. It's easy to find people here to talk before clubs and social groups.
165. There is little sympathy here for individuals who have ambitious daydreams about the future.

166. Experiments which involve some physical danger are usually tolerated here.
167. People here are not concerned with the way our society is organized or how it operates.
168. People frequently do things on the spur of the moment.
169. Proper social forms and manners are not really that important here.
170. This organization has a reputation for being very friendly.

171. The administrators here seem to brood, act moody, and are hard to figure out.
172. The buildings and grounds often look a little untidy.
173. Having a good time comes first here.
174. People with manual skills are highly respected here.
175. People here talk about different concepts of truth.

176. Personnel who believe in the application of the scientific method to problems in their specialty are sought by the organization.
177. People here have good collections of paintings and records.
178. Many people who work here read stories and novels about love.
179. The community at large is not really interested in the personal problems of people who work here.
180. Few people here are challenged by deep thinking.

T - TRUE.	Generally TRUE or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.
F - FALSE.	Generally FALSE or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

181. Public embarrassment is the price you pay for admitting you don't know the answer.
182. People set high standards of achievement for themselves here.
183. People quickly learn what is done and not done here.
184. Administrators rarely call people by their first name.
185. When people dislike someone here, they make no secret of it.
186. New ideas are always being tried out here.
187. The flow of important information down from the policy making body of this organization is smooth and efficient.
188. People here tend to follow the path of least resistance in their dealings with one another.
189. People delight in challenging organizational policies.
190. Anyone who knows the right people in the administration can get a better break in this organization.
191. The administration encourages people to take an active interest in social reforms and political activities.
192. People here tend to hide their deeper feelings from each other.
193. Administrators put a lot of energy and enthusiasm in directing this organization.
194. Special events are given a great deal of fanfare and publicity.
195. People here are optimists when they talk about their future.
196. Everyone here is "safety-first" conscious, making sure that nobody will get hurt.
197. There are copies of many famous paintings in the halls, rooms, and offices.
198. People who tend to say or do the first thing that occurs to them are likely to have a hard time here.
199. There is a general idea of appropriate dress which everyone follows.
200. Everyone here likes to feel that he is a member of the team.

T - TRUE. Generally TRUE or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.

F - FALSE. Generally FALSE or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

201. There always seems to be a lot of little quarrels going on here.
202. Personnel sometimes exchange each others responsibilities.
203. It's easy to get a group together for games, cokes, movies, etc.
204. The academic atmosphere is practical, emphasizing efficiency and usefulness.
205. The administration here is intellectually oriented.
206. This organization would not change policies quickly, even in the light of current research.
207. Paintings or statues of nudes are sometimes placed on display.
208. The administration does not consider sex a forbidden topic.
209. People here commonly share their difficulties.
210. The staff are all experts in their respective fields.
211. The administration has little tolerance for complaints and protests.
212. Standards set by the administration are not particularly hard to achieve.
213. The public watches everything that's done here.
214. People spend a great deal of time together socially.
215. People are often noisy and inattentive at meetings.

216. Each year we have the same kind of activities.
217. This organization has a systematic schedule for growth and development.
218. No one gets pushed around in this organization without fighting back.
219. The administration will only see people by appointment.
220. There would be little opposition to the formation of a committee to control conduct and ethics.

T - TRUE.	Generally TRUE or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.
F - FALSE.	Generally FALSE or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

221. Discussions about making this world a better place in which to live are not unusual here.
222. It is not uncommon here to see someone let loose and have a good cry.
223. The day-to-day activities are not very demanding.
224. Most people here are outgoing and extroverted.
225. Unusual or exciting plans are encouraged here.

226. Most of the people do not smoke and drink.
227. The organization encourages people to read widely.
228. People here feel free to express themselves impulsively.
229. Everyone here wants to be known as an individual in whatever they do.
230. The community expects people to help out with fund drives, CARE, Red Cross, etc.

231. The administration is jealous of its authority.
232. In this organization there is a place for everything, and everyone.
233. People here follow the maxim "business before pleasure."
234. The community respects the practical people more than it does the thinkers or dreamers.
235. Long, serious intellectual discussions are common in this organization.

236. Many personnel are engaged in research pertaining to their fields of specialization.
237. The use of vivid or novel expressions in official reports is discouraged.
238. Some of the more popular people who work here have a knack for making witty, subtle remarks with a slightly sexy tinge.
239. The administration will go out of its way to help you when you're having trouble.
240. Sound scholarship is appreciated here.

T - TRUE.	Generally TRUE or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.
F - FALSE.	Generally FALSE or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

241. People here accept criticism without talking back.
242. The performance of day-to-day duties is more routine than creative.
243. The quality of your work cannot be kept a secret here.
244. People often prepare their work together.
245. Most people pay little attention to rules and regulations.

246. This organization is especially proud of its history and traditions.
247. People do not know how to prepare to be graded or rated because they do not know what is being looked for.
248. People here work well under stress.
249. No one ever makes fun of the people or traditions and policies of this place.
250. People here are always trying to win an argument.

251. The administrators play important roles in the local community.
252. Honors and special distinctions are generally awarded and received without any show of emotion.
253. The organization demands that personnel push themselves to the limit.
254. This organization tries to avoid any form of public attention.
255. Not too many people aspire to top leadership positions here.

256. People who are ill are encouraged to stay on the job and finish the day's work.
257. The library is exceptionally well equipped with journals, periodicals, and books in the social sciences.
258. Joking and laughing are usual in work situations here.
259. Looking and acting "right" is expected by the community.
260. People here usually help each other out, if the need arises.

T - TRUE. Generally TRUE or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.

F - FALSE. Generally FALSE or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

261. This organization has an outstanding reputation for academic freedom.
262. Communication within the organization is always carried out through formal channels.
263. People are always very serious and purposeful about their work.
264. Practical leadership is strongly emphasized here.
265. People who are concerned with developing their own personal and private system of values would not fit into this organization.

266. The administration is research conscious.
267. Unusual, colorful, or dynamic presentation of staff reports are looked upon with disfavor by the administration.
268. There is a lot of steady dating here.
269. Administrators are not sympathetic to people who are in need of help.
270. People who attempt discussions on serious subjects are often made to feel foolish or out-of-place here.

271. There is a lot of apple-polishing around here.
272. Most activities here present a real challenge.
273. People are allowed little or no personal privacy here.
274. Administrators listen to people as well as direct them.
275. People ask permission before deviating from common policies or practice.

276. People here generally look for novelty and variety.
277. The official policies of this organization are easily understood.
278. It is always difficult to get a group decision here without a lot of argument.
279. The administration encourages open discussion of controversial ideas.
280. Leaders have special privileges in this organization.

T - True.	Generally TRUE or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.
F - FALSE.	Generally FALSE or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

281. Local community issues are rarely discussed here.
282. People respond to pressure here in a calm and mild mannered way.
283. Discussions on controversial issues often produce heated debates here.
284. Parties are colorful and lively here.
285. Quite a large number of people here have had varied and unusual experiences.

286. Few people bother with rubbers, hats, or other special protection against the weather.
287. Good music is practically never heard here.
288. Programs here are easily changed to meet new conditions.
289. The administration has set reasonable standards for appropriate dress.
290. "Lend a helping hand" could very well be the motto of this organization.

291. Many people here are superstitious.
292. Formal rules and regulations have a very important place in this organization.
293. People here believe that "all work and no play makes Jack a dull lad."
294. This organization is oriented mainly towards current everyday affairs.
295. There is considerable interest in the analysis of value systems and the relativity of societies and ethics.

296. There is a lot of interest in the philosophy and methods of science.
297. There is a special effort made in the cafeteria to serve lunches that are tasteful and appealing to the eye.
298. Frank discussions about sex are not uncommon among people here.
299. People here really understand your problems.
300. Careful reasoning and clear logic are highly valued here.

APPENDIX C

ORGANIZATIONAL CLIMATE INDEX--FORM 1163

ORGANIZATIONAL CLIMATE INDEX

Form 1163

George G. Stern and Carl R. Steinhoff

There are 300 statements in this booklet. They are statements which describe the environment in which people work. The statements refer to daily activities, to rules and regulations and policies, to typical interests and projects, to features of the physical environment, etc. The statements may or may not be characteristic of your situation because organizations differ from one another in many ways. You are to decide which statements are characteristic of your institution and which are not. Your answers should tell us what you believe the institution is like rather than what you might personally prefer. You won't *know* the answer to many of these statements, because there may not be any really definite information on which to base your answer. *Your responses will simply mean that in your opinion the statement is probably true or probably false about your organization.*

Do not omit any item.

DIRECTIONS

On the special answer sheet print your name, and the other information requested. Then, as you read each statement in the booklet, *blacken* space

T – when you think the statement is generally TRUE or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.

F – when you think the statement is generally FALSE or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

DIRECTIONS FOR USING NCS ANSWER SHEET

The rows of response circles are numbered to correspond to the items in the Test Booklet. Each question may be answered either Ⓣ or Ⓕ.

In marking your answers on the Answer Sheet, make sure that the number of the Statement is the same as the number on the Answer Sheet. Be sure to answer either Ⓣ or Ⓕ for every Statement.

- **Be sure to use a No. 2½ or softer writing pencil.**
- **Do Not Use Ball Point or Ink.**
- **Keep your Answer Sheet Clean.**
- **Do not make stray marks.**
- **Erase errors completely.**
- **Fill the circle completely.**

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Legend: **T — True.** Generally true or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.

F — False. Generally false or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

1. Criticism of administrative policies and practices is encouraged.
2. The competition for recognition is intense.
3. Errors and failures are talked about freely so that others may learn from them.
4. It's hard to make friends here because there is so little opportunity to meet with other people.
5. People treat the furnishings and equipment with care here.
6. There are many differences in nationality, religion, and social status represented here.
7. Work programs are well organized and progress systematically from week to week.
8. Policy matters often provoke widespread discussions that are both intense and lively.
9. Important people here are always addressed as Mr., Mrs. or Sir.
10. People here are always trying to manipulate the activities of others for their own advantage.
11. Knowledge about national and international affairs is valued here.
12. People here express their feelings openly and enthusiastically.
13. Discussions get quite heated, with a lot of display of feeling.
14. Group activities are often released to the newspapers.
15. People here hope to achieve future fame and recognition.
16. Procedures to be followed in case of fires, air raids, and accidents are not prominently posted.
17. People here are interested in the analysis of social and political problems.
18. Policy changes occur slowly and only after considerable deliberation.
19. Formal receptions or formal social affairs are seldom held here.
20. Members of the top administration are expected to take a leading role in community affairs.
21. No one needs to be afraid of expressing extreme or unpopular viewpoints here.
22. Formal seating arrangements are quite common here for all sorts of group meetings.
23. People really look forward to vacations, leave or weekend breaks.
24. It's important here to be in the right club or group.
25. Discussions about ethics, morality, psychological problems or personal values are not unusual.
26. Applications of research, experimental analysis, surveys, and other forms of scientific method are encouraged.
27. Much has been done with pictures, draperies, colors, and decoration to make this place pleasing to the eye.
28. Most of the group are young and unmarried.
29. Everyone here has a strong sense of being a member of the team.
30. Books dealing with mathematics or logic are of interest to many of the people here.
31. It's necessary to be polite under all circumstances in order to stay out of trouble here.
32. It is fairly easy to keep up here without working too hard.
33. Most activities are closely supervised.
34. There is a lot of group spirit.
35. Most people here seem to be especially considerate of others.
36. Policies and methods of operation are frequently revised.
37. Administrative policy, goals, and objectives are carefully explained to everyone.
38. When people here disagree with an administrative decision, they work to get it changed.
39. People here make every effort to please the administrative staff.
40. Elections, peer-evaluations, or other forms of ratings of group members by one another generate strong feeling.
41. The expression of strong personal belief is pretty rare around here.
42. People can get into very heated arguments with one another, and be the best of friends the next day.
43. People here put a great deal of energy into everything they do.
44. People here are likely to dress colorfully.
45. People here like to speculate on unusual opportunities for quick advancement.
46. The daily schedule includes some rough physical activities.
47. Improving one's knowledge of important works of art, music, and drama is encouraged here.
48. People here often change the way they do things on the spur of the moment.
49. People take much pride in their personal appearance.
50. There is a lot of interest here in projects for collecting packages of food or clothing to help out others.

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51. One of the values most stressed here is open-mindedness.
52. The administration expects that there will be no deviation from established practices no matter what the circumstances.
53. Social events get a lot of enthusiasm and support.
54. Achievements are weighed in terms of their practical value.
55. A lecture by an outstanding philosopher or theologian would be of interest to many of the people here.
56. People who are seriously interested in the natural sciences would be out of place here.
57. Music is never allowed when people are working.
58. People who have friends of the opposite sex show their affections openly.
59. People find others eager to help them get started.
60. People here spend a great deal of time thinking about and discussing complex problems.
61. People are seldom kept waiting when they have appointments with the administrative staff.
62. Getting ahead requires much intensive outside work in addition to doing your regular assignments.
63. Criticism or advice from an administrator is usually welcomed.
64. There are many opportunities for people to get together in planned social activities after hours.
65. People here tend to be cautious and self-controlled at all times.
66. The people here come from all parts of the country.
67. The ability to plan ahead is highly valued here.
68. People here are not likely to accept administrative ineptitude without complaint or protest.
69. The administrative staff rarely refer to one another by their first names.
70. The administration expects people to report violations of rules and regulations.
71. Daily newspapers are widely read.
72. The way people feel around here is always pretty evident.
73. Few people here would ever work to the point of exhaustion.
74. People here are provided with opportunities to develop skills and talents directing or coordinating the work of others.
75. Most people here would regard mountain-climbing or rugged camping trips as pretty pointless.
76. Posters, drills, or slogans stressing physical safety are not unusual here.
77. Few people here would be interested in attending a lecture by an outstanding literary critic.
78. Many social activities are unplanned and spontaneous.
79. People are expected to have a great deal of social grace and polish.
80. This place has a reputation for being indifferent to the public welfare.
81. Regulations are interpreted and enforced in an understanding manner.
82. Untidy reports or ones that depart from a specified style are almost certain to be returned unaccepted.
83. Most people here go to lots of parties and other social activities.
84. The emphasis here is on the abstract rather than the concrete and tangible.
85. There are many facilities and opportunities for individual creative activity.
86. Few people here would be interested in attending a lecture by an outstanding scientist.
87. Uniformity of decoration is the policy here, with no deviation from the norm.
88. Most people here love to dance.
89. People who are always offering their assistance are likely to be regarded as a nuisance.
90. Few people here are stimulated by intellectual activities or problems.
91. Almost anyone is likely to be blamed, even those who had little to do with it, if something happens to go wrong.
92. Personality and pull are more important than competence in getting ahead around here.
93. Most projects are done in groups rather than by individuals.
94. People have little to say to one another here.
95. The administrative staff are often joked about or criticized.
96. Everyone in this group has pretty much the same attitudes, opinions, and beliefs.
97. Most activities here are planned carefully.
98. People here speak up openly and freely.
99. Many people here try to pattern themselves after people who can help them.
100. Personal rivalries are fairly common in this place.

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F — False. Generally false or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

101. Most people here are not very interested in what goes on in politics or government.
102. People here are not only expected to have ideas but to do something about them.
103. There is so much to do here that people are busy all the time.
104. Most people here tend to be shy in groups.
105. Most people here are concerned with the present rather than the future.
106. Risk-taking in the physical sense is part of the day-to-day program.
107. Few people here are interested in literature, art, or music.
108. Quick decisions and action are not characteristic of this place.
109. Good manners and making a good impression are important here.
110. The activities of charities and social agencies are strongly supported.
111. Criticism is taken as a personal affront in this organization.
112. Neatness in this place is the rule rather than the exception.
113. People are always ready to drop their work and take a coffee break.
114. Many people here are efficient at making or repairing things.
115. Modern art and music get little attention here.
116. Few people in this group have any background in science.
117. There are no restaurants in this community offering unusual or exceptionally well-prepared food.
118. Male-female relationships sometimes become quite serious.
119. People are expected to work at their own problems in their own way.
120. Many people here enjoy talking about poetry, philosophy or religion.
121. People who work hard here do so in spite of the realization that someone else will be getting the credit.
122. People will have it in for you here if you work too hard.
123. The work of the individual is always evaluated in terms of group goals and objectives.
124. Everyone is helped to get acquainted.
125. A lot of people in this place walk around with a chip on their shoulder.
126. Familiar faces sometimes tend to disappear without much explanation.
127. All work assignments are laid out well in advance, so that people can plan their own schedules accordingly.
128. People here thrive on difficulty – the tougher things get, the harder everyone works.
129. People here are usually opposed to the local administrative staff.
130. The important people in this place expect others to show proper respect for them.
131. Any form of political activity is strongly discouraged by the administrative staff.
132. There are very few issues here which arouse much excitement or feeling.
133. Leadership here lacks vigor.
134. There are a good many colorful and controversial figures here.
135. Administrative policy supports the practical and the realistic.
136. People here are sometimes reminded to take preventive measures against illness.
137. People who usually talk about music, theater, or other art forms consistently are likely to be regarded as a little odd.
138. People here often start projects without trying to decide in advance how they will develop or where they may end.
139. Individuals who are not properly groomed are likely to have this called to their attention.
140. Service to the community is regarded as a major responsibility of the institution.
141. Sound reasoning is rewarded here, even though it may lead to unpopular conclusions.
142. Attendance is checked carefully.
143. No one takes their work too seriously here.
144. Family, social, or financial status are necessary elements for advancement or success here.
145. People here are not really concerned with deep philosophical or ethical matters.
146. A discussion about the latest scientific inventions would not be uncommon here.
147. People are encouraged to dress for personal comfort rather than for appearance.
148. The administration does not concern itself with the dating habits of people here.
149. People here have a great deal of freedom to do as they wish.
150. Thinking of alternative ways in which problems might be solved or things done differently is discouraged here.

Legend: T — True. Generally true or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.

F — False. Generally false or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

151. No one is expected to suffer in silence if some regulation happens to create a personal hardship.
152. Good work is really recognized around here.
153. Work is checked to see if it is done properly and on time.

154. There are few opportunities for informal talk with administrators.
155. When people dislike policy they let the administrative staff know it in no uncertain terms.
156. Most members of the administrative staff have been here for many years.

157. Administrators are practical and efficient in the way they dispatch their business.
158. People avoid direct clashes with the administration at all costs.
159. Many people here will not hesitate to give strong public support to a project that the administrative staff is opposed to.

160. There are no favorites in this place; everyone gets treated alike.
161. Strong positions are taken here regarding civil liberties and minority groups.
162. Open displays of emotion have no place here.

163. People here can get so absorbed in their work they often lose all sense of time or personal comfort.
164. It's easy to find people here to talk before clubs and social groups.
165. There is little sympathy here for individuals who have ambitious daydreams about the future.

166. Conditions which involve some risk of physical danger are usually tolerated here.
167. People here are not concerned with the way our society is organized or how it operates.
168. People frequently do things on the spur of the moment.

169. Proper social forms and manners are not particularly important here.
170. There are excellent opportunities here for members of minority groups.
171. Many people here seem to brood, act moody, and are hard to figure out.

172. The buildings and grounds often look a little untidy.
173. Having a good time comes first here.
174. People with manual skills are highly respected here.

175. People here philosophize about different concepts of truth.
176. Magazines such as *Scientific American* are read by many people who work here.
177. Many people here have good personal collections of paintings and records.
178. Stories and novels about love are a popular form of reading material here.

179. The administrative staff is hardly ever concerned with the personal problems of the people who work here.
180. Few people here are challenged by deep thinking.
181. People are made to feel inadequate here for admitting that they don't know the answers.

182. People set high standards of achievement for themselves here.
183. People quickly learn what is done and not done here.
184. People here are reluctant to call one another by their first names.

185. When people dislike someone here, they make no secret of it.
186. New ideas are always being tried out here.
187. The flow of important information down from the administrative staff is smooth and efficient.

188. People here tend to take the easy way out when things get tough.
189. People delight in challenging official policies.
190. Anyone who knows the right people in the administration can get a better break.

191. The administrative staff encourages people to take an active interest in political activities.
192. People here tend to hide their deeper feelings from each other.
193. Administrators put a lot of energy and enthusiasm into directing this program.

194. Special events are given a great deal of fanfare and publicity.
195. People here talk about their future imaginatively and with enthusiasm.
196. Everyone here is "safety-first" conscious, anxious to avoid accidents and correct the conditions which produce them.

197. There are copies of famous paintings in the halls, rooms, or offices.
198. People who tend to say or do the first thing that occurs to them are likely to have a hard time here.
199. There is a general idea of appropriate dress which everyone follows.

200. The underdog enjoys sympathy and compassion here.

Legend: T — True. Generally true or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.

F — False. Generally false or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

201. There always seem to be a lot of little quarrels going on here.
202. People sometimes exchange each other's responsibilities.
203. It's easy to get a group together for games, cokes, movies, etc.
204. The work atmosphere emphasizes efficiency and usefulness.
205. Administrators are quite often occupied with serious considerations of basic goals and values.
206. The latest scientific discoveries make few changes in the way this place is run.
207. Paintings or statues of nudes can be seen here.
208. The administrative staff does not consider sex a forbidden topic.
209. People often run errands or do other personal services for each other.
210. Administrators here are considered experts in their respective fields.
211. The administrative staff has little tolerance for complaints and protests.
212. Standards set by administrative staff are not particularly hard to achieve.
213. The public is interested in everything that is done here.
214. People spend a great deal of time together socially.
215. People are often noisy and inattentive when brought together in groups.
216. Most people dress and act pretty much alike.
217. There is no wasted time here; everything has been planned right to the minute.
218. People who get pushed around here are expected to fight back.
219. Administrators will see people by appointment only.
220. There would be little opposition to the formation of a committee to control conduct and ethics.
221. Discussions about improving society are common here.
222. People here can be wildly happy one minute and hopelessly depressed the next.
223. The day to day activities do not require a sustained or intensive effort.
224. Most people here are outgoing and extroverted.
225. Unusual or exciting plans are encouraged here.
226. Few people here smoke or drink.
227. Most people here are well-read.
228. People here feel free to express themselvse impulsively.
229. People here are always looking for compliments.
230. People here expect to help out with fund drives, CARE, Red Cross, etc.
231. Administrative staff members are frequently jealous of their authority.
232. There is a specific place for everything and everyone here.
233. People here follow the maxim "business before pleasure."
234. Practical people are respected more than thinkers or dreamers here.
235. People here often get involved in long, serious intellectual discussions.
236. Many people here are engaged in research pertaining to their fields of specialization.
237. The use of vivid or novel expressions in conversation is generally frowned upon.
238. Some of the more popular people here have a knack for making witty, subtle remarks with a slightly sexy tinge.
239. The administrative staff will go out of its way to help you with your work.
240. People here seem to enjoy abstract problem-solving and detached thinking.
241. People here learn to accept criticism without talking back.
242. The successful performance of day to day duties is routine and undemanding.
243. The quality of your work cannot be kept a secret here.
244. People often prepare their work together.
245. Most people pay little attention to rules and regulations.
246. There are conventional ways of doing things here which are rarely changed.
247. People do not know how to prepare to be graded or rated because they do not know what is being looked for.
248. People here work well under stress.
249. Almost no one here ever makes fun of the people, traditions or policies of this place.
250. People here are always trying to win an argument.

Legend: T — True. Generally true or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.

F — False. Generally false or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

251. People here expect the world will be a better place to live because of their efforts.
252. Honors and special distinctions are generally awarded and received without any show of emotion.
253. The administrative staff expects that people will push themselves to the limit.

254. The administration here frowns on any form of public attention.
255. Not too many people want to become top leaders here.
256. People who are ill are encouraged to stay on the job and finish the day's work.

257. Many people here read magazines and books involving history, economics or political science.
258. Joking and laughing are usual in work situations here.
259. Looking and acting "right" is expected.

260. The people here are easily moved by the misfortunes or distress of others.
261. Everyone has the same opportunity to make good.
262. Communication within the organization is always carried on through formal channels.

263. People are always very serious and purposeful about their work.
264. The administration is satisfied to achieve short range goals and objectives.
265. People who are concerned with developing their own personal and private system of values would not fit in here.

266. The administration is research conscious.
267. Little attempt has been made to make this place comfortable or attractive.
268. There is a lot of steady dating here.

269. People here mind their own business.
270. People who attempt discussions on serious subjects are often made to feel foolish or out-of-place here.
271. There is a lot of apple-polishing around here.

272. Most activities here present a real personal challenge.
273. The quality of your work is rated or evaluated frequently.
274. Members of the administrative staff listen to people as well as direct them.

275. People ask permission before deviating from common policies or practices.
276. People here generally look for novelty and variety.
277. Most people here follow a regular plan for work and play.
278. It is always difficult to get a group decision here without a lot of discussion.

279. Administrators are sometimes given uncomplimentary nicknames.
280. There is a recognized group of leaders who receive special privileges.
281. Social issues are rarely discussed here.

282. People respond to pressure here in a calm and mild-mannered way.
283. People here feel they must really work hard because of the important nature of their work.
284. Parties are colorful and lively here.

285. A number of people here have had varied and unusual careers.
286. Few people bother with rubbers, hats, or other special protection against the weather.
287. Classical music is practically never heard here.

288. Programs here are quickly changed to meet new conditions.
289. People are always carefully dressed and neatly groomed.
290. "Lend a helping hand" could very well be the motto of this place.

291. Many people here are superstitious.
292. Formal rules and regulations have a very important place here.
293. People here believe that "all work and no play makes Jack a dull boy."

294. People here are generally efficient and successful in practical affairs.
295. There is considerable interest in the analysis of value systems and the relativity of societies and ethics.
296. There is a lot of interest in the philosophy and goals of science here.

297. Most people here attend concerts or art exhibits whenever they get the chance.
298. Frank discussions about sex are not uncommon among people here.
299. People here are usually quick to help each other out.

300. Careful reasoning and clear logic are highly valued here.

APPENDIX D

ITEM ANALYSIS

Organizational Climate Index Item Characteristics[a]

											Scale Mean
Aba	Item 1	31	61	91	121	151	181	211	241	271	
	.62	.55	.46	.37	.45	.36	.26	.55	.43	.42	.45
Ach	Item 2	32	62	92	122	152	182	212	242	272	
	.02	.68	.40	.46	.20	.45	.45	.53	.57	.64	.44
Ada	Item 3	33	63	93	123	153	183	213	243	273	
	.61	.69	.39	.49	.53	.51	.26	.53	.43	.73	.52
Aff	Item 4	34	64	94	124	154	184	214	244	274	
	.37	.64	.51	.22	.44	.55	.18	.37	.67	.27	.42
Agg	Item 5	35	65	95	125	155	185	215	245	275	
	.34	.30	.46	.67	.31	.53	.58	.54	.24	.27	.42
Cha	Item 6	36	66	96	126	156	186	216	246	276	
	.40	.61	.51	.37	.11	.37	.64	.50	.61	.55	.57
Cnj	Item 7	37	67	97	127	157	187	217	247	277	
	.61	.78	.42	.62	.73	.64	.73	.74	.41	.23	.59
Ctr	Item 8	38	68	98	128	158	188	218	248	278	
	.43	.64	.61	.55	.52	.63	.37	.65	.47	.13	.50
Dfr	Item 9	39	69	99	129	159	189	219	249	279	
	.51	.58	.37	.31	.27	.52	.26	.06	.60	.38	.39
Dom	Item 10	40	70	100	130	160	190	220	250	280	
	.29	.37	.51	.36	.40	.60	.57	.36	.38	.37	.42
E/A	Item 11	41	71	101	131	161	191	221	251	281	
	.13	.50	.23	.24	.38	.63	.63	.72	.52	.56	.45
Emo	Item 12	42	72	102	132	162	192	222	252	282	
	.48	.45	.54	.37	.53	.59	.62	.22	.45	.22	.45
Eny	Item 13	43	73	103	133	163	193	223	253	283	
	.57	.57	.66	.40	.54	.71	.53	.35	.40	.44	.52
Exh	Item 14	44	74	104	134	164	194	224	254	284	
	.56	.57	.66	.20	.43	.57	.65	.44	.15	.68	.49
F/A	Item 15	45	75	105	135	165	195	225	255	285	
	.50	.35	.60	.49	.08	.39	.74	.55	.65	.59	.49
Har	Item 16	46	76	106	136	166	196	226	256	286	
	.38	.27	.39	.31	.59	.32	.45	.23	.26	.17	.34
Hum	Item 17	47	77	107	137	167	197	227	257	287	
	.52	.75	.63	.43	.31	.23	.43	.43	.62	.63	.50

O C I Item Characteristics--Continued

											Scale Mean
Imp	Item 18	48	78	108	138	168	198	228	258	288	
	.29	.63	.38	.63	.18	.71	.50	.57	.45	.48	.48
Nar	Item 19	49	79	109	139	169	199	229	259	289	
	.37	.24	.72	.42	.65	.53	.47	.01	.36	.30	.41
Nur	Item 20	50	80	110	140	170	200	230	260	290	
	.51	.65	.18	.49	.50	.41	.50	.33	.31	.49	.44
Obj	Item 21	51	81	111	141	171	201	231	261	291	
	.76	.65	.45	.53	.71	.36	.27	.37	.36	.18	.46
Ord	Item 22	52	82	112	142	172	202	232	262	292	
	.23	.44	.64	.31	.17	.41	.18	.55	.60	.64	.42
Ply	Item 23	53	83	113	143	173	203	233	262	293	
	.09	.47	.62	.40	.16	.14	.65	.27	.41	.29	.35
Pra	Item 24	54	84	114	144	174	204	234	264	294	
	.12	.51	.18	.51	.07	.57	.35	.37	.26	.19	.31
Ref	Item 25	55	85	115	145	175	205	235	265	295	
	.51	.68	.56	.65	.57	.76	.36	.67	.37	.80	.59
Sci	Item 26	56	86	116	146	176	206	236	266	296	
	.62	.28	.59	.61	.67	.67	.67	.70	.63	.83	.63
Sen	Item 27	57	87	117	147	177	207	237	267	297	
	.69	.43	.31	.37	.29	.60	.02	.29	.55	.62	.42
Sex	Item 28	58	88	118	148	178	208	238	268	298	
	.07	.47	.53	.31	.01	.31	.04	.47	.21	.66	.31
Sup	Item 29	59	89	119	149	179	209	239	269	299	
	.63	.37	.43	.47	.14	.45	.32	.47	.08	.24	.36
Und	Item 30	60	90	120	150	180	210	240	270	300	
	.75	.78	.47	.75	.29	.68	.48	.59	.16	.37	.53
										$\bar{X}$ =	.45

[a] Ebel Item Discrimination Index.

APPENDIX E

ACTIVITIES INDEX

STERN ACTIVITIES INDEX

Form 1158

George G. Stern, Syracuse University

This booklet contains a number of brief statements describing many different kinds of activities. You will like some of these things. They will seem more pleasant than unpleasant to you, perhaps even highly enjoyable. There will be others that you will dislike, finding them more unpleasant than pleasant. The activities listed in this booklet have been obtained from a great many different persons. People differ in the kinds of things they enjoy, like to do, or find pleasant to experience. You are to decide which of these you like and which you dislike.

DIRECTIONS

Print the information called for at the top of the special answer sheet: your name, the date, your age and sex, etc. Then, as you read each item, *blacken* space

L — if the item describes an activity or event that you would like, enjoy, or find more pleasant than unpleasant.

D — if the item describes an activity or event that you would dislike, reject, or find more unpleasant than pleasant.

Be sure to fill in the whole space between the dotted lines with a heavy, black mark, using the special pencil provided. You need not spend much time on any one item; go through the list quickly, being sure to answer *every* item. Do not make any marks in this booklet.

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Syracuse University

Legend: L - if the item describes an activity or event that you would like, enjoy, or find more pleasant than unpleasant.

D - if the item describes an activity or event that you would dislike, reject, or find more unpleasant than pleasant.

1. Taking the blame for something done by someone I like.
2. Setting difficult goals for myself.
3. Concealing a failure or humiliation from others.
4. Having other people let me alone.
5. Getting what is coming to me even if I have to fight for it.

6. Being quite changeable in my likes and dislikes.
7. Scheduling time for work and play during the day.
8. Working twice as hard at a problem when it looks as if I don't know the answer.
9. Seeing someone make fun of a person who deserves it.
10. Persuading a group to do something my way.

11. Being a newspaperman who crusades to improve the community.
12. Listening to music that makes me feel very sad.
13. Taking up a very active outdoor sport.
14. Keeping in the background when I'm with a group of wild, fun-loving, noisy people.
15. Toughening myself, going without an overcoat, seeing how long I can go without food or sleep, etc.

16. Diving off the tower or high board at a pool.
17. Learning about the causes of some of our social and political problems.
18. Doing something crazy occasionally, just for the fun of it.
19. Imagining what I would do if I could live my life over again.
20. Feeding a stray dog or cat.

21. Taking special precautions on Friday, the 13th.
22. Washing and polishing things like a car, silverware, or furniture.
23. Making my work go faster by thinking of the fun I can have after it's done.
24. Being good at typewriting, knitting, carpentry, or other practical skills.
25. Understanding myself better.

26. Learning how to prepare slides of plant and animal tissue, and making my own studies with a microscope.
27. Holding something very soft and warm against my skin.
28. Talking about how it feels to be in love.
29. Belonging to a close family group that expects me to bring my problems to them.
30. Concentrating intently on a problem.

31. Suffering for a good cause or for someone I love.
32. Working for someone who will accept nothing less than the best that's in me.
33. Defending myself against criticism or blame.
34. Going to the park or beach with a crowd.
35. Shocking narrow minded people by saying and doing things of which they disapprove.

36. Getting up and going to bed at the same time each day.
37. Planning a reading program for myself.
38. Returning to a task which I have previously failed.
39. Doing what most people tell me to do, to the best of my ability.
40. Having other people depend on me for ideas or opinions.

41. Being an important political figure in a time of crisis.
42. Crying at a funeral, wedding, graduation, or similar ceremony.
43. Exerting myself to the utmost for something unusually important or enjoyable.
44. Wearing clothes that will attract a lot of attention.
45. Working until I'm exhausted, to see how much I can take.

46. Being careful to wear a raincoat and rubbers when it rains.
47. Studying the music of particular composers, such as Bach, Beethoven, etc.
48. Acting impulsively just to blow off steam.
49. Thinking about ways of changing my name to make it sound striking or different.
50. Discussing with younger people what they like to do and how they feel about things.

Legend: L - if the item describes an activity or event that you would like, enjoy, or find more pleasant than unpleasant.

D - if the item describes an activity or event that you would dislike, reject, or find more unpleasant than pleasant.

51. Waiting for a falling star, white horse, or some other sign of success before I make an important decision.
52. Keeping my bureau drawers, desk, etc., in perfect order.
53. Spending most of my extra money on pleasure.
54. Learning how to repair such things as the radio, sewing machine, or car.
55. Thinking about different kinds of unusual behavior, like insanity, drug addiction, crime, etc.

56. Studying wind conditions and changes in atmospheric pressure in order to better understand and predict the weather.
57. Eating after going to bed.
58. Watching a couple who are crazy about each other.
59. Working for someone who always tells me exactly what to do and how to do it.
60. Finding the meaning of unusual or rarely used words.

61. Being polite or humble no matter what happens.
62. Setting higher standards for myself than anyone else would, and working hard to achieve them.
63. Admitting when I'm in the wrong.
64. Leading an active social life.
65. Doing something that might provoke criticism.

66. Rearranging the furniture in the place where I live.
67. Putting off something I don't feel like doing, even though I know it has to be done.
68. Having to struggle hard for something I want.
69. Listening to a successful person tell about his experience.
70. Getting my friends to do what I want to do.

71. Taking an active part in social and political reform.
72. Avoiding excitement or emotional tension.
73. Staying up all night when I'm doing something that interests me.
74. Speaking at a club or group meeting.
75. Imagining myself president of the United States.

76. Crossing streets only at the corner and with the light.
77. Listening to TV or radio programs about political and social problems.
78. Being in a situation that requires quick decisions and action.
79. Pausing to look at myself in a mirror each time I pass one.
80. Helping to collect money for poor people.

81. Paying no attention to omens, signs, and other forms of superstition.
82. Keeping an accurate record of the money I spend.
83. Dropping out of a crowd that spends most of its time playing around or having parties.
84. Helping to direct a fund drive for the Red Cross, Community Chest, or other organization.
85. Imagining life on other planets.

86. Reading articles which tell about new scientific developments, discoveries, or inventions.
87. Chewing on pencils, rubber bands, or paper clips.
88. Talking about who is in love with whom.
89. Being a lone wolf, free of family and friends.
90. Spending my time thinking about and discussing complex problems.

91. Trying to figure out how I was to blame after getting into an argument with someone.
92. Competing with others for a prize or goal.
93. Being ready with an excuse or explanation when criticized.
94. Meeting a lot of people.
95. Arguing with an instructor or superior.

96. Being generally consistent and unchanging in my behavior.
97. Going to a party where all the activities are planned.
98. Doing a job under pressure.
99. Going along with a decision made by a supervisor or leader rather than starting an argument.
100. Organizing groups to vote in a certain way in elections.

Legend: L - if the item describes an activity or event that you would like, enjoy, or find more pleasant than unpleasant.

D - if the item describes an activity or event that you would dislike, reject, or find more unpleasant than pleasant.

101. Living a life which is adventurous and dramatic.
102. Having someone for a friend who is very emotional.
103. Sleeping long hours every night in order to have lots of rest.
104. Playing music, dancing, or acting in a play before a large group.
105. Thinking about what I could do that would make me famous.

106. Riding a fast and steep roller coaster.
107. Comparing the problems and conditions of today with those of various times in the past.
108. Doing whatever I'm in the mood to do.
109. Daydreaming about what I would do if I could live my life any way I wanted.
110. Comforting someone who is feeling low.

111. Avoiding things that might bring bad luck.
112. Arranging my clothes neatly before going to bed.
113. Getting as much fun as I can out of life, even if it means sometimes neglecting more serious things.
114. Learning how to make such things as furniture or clothing myself.
115. Trying to figure out why the people I know behave the way they do.

116. Doing experiments in physics, chemistry or biology in order to test a theory.
117. Sleeping in a very soft bed.
118. Seeing love stories in the movies.
119. Having someone in the family help me out when I'm in trouble.
120. Working crossword puzzles, figuring out moves in checkers or chess, playing anagrams or scrabble, etc.

121. Admitting defeat.
122. Taking examinations.
123. Being corrected when I'm doing something the wrong way.
124. Belonging to a social club.
125. Teasing someone who is too conceited.

126. Moving to a new neighborhood or city, living in a different country, etc.
127. Finishing something I've begun, even if it is no longer enjoyable.
128. Staying away from activities which I don't do well.
129. Following directions.
130. Being able to hypnotize people.

131. Playing an active part in community affairs.
132. Going on an emotional binge.
133. Walking instead of riding whenever I can.
134. Doing something that will create a stir.
135. Thinking about winning recognition and acclaim as a brilliant military figure.

136. Standing on the roof of a tall building.
137. Studying different types of government, such as the American, English, Russian, German, etc.
138. Doing things on the spur of the moment.
139. Having lots of time to take care of my hair, hands, face, clothing, etc.
140. Having people come to me with their problems.

141. Being especially careful the rest of the day if a black cat should cross my path.
142. Recopying notes or memoranda to make them neat.
143. Finishing some work even though it means missing a party or dance.
144. Working with mechanical appliances, household equipment, tools, electrical apparatus, etc.
145. Thinking about what the end of the world might be like.

146. Studying the stars and planets and learning to identify them.
147. Listening to the rain fall on the roof, or the wind blow through the trees.
148. Flirting.
149. Knowing an older person who likes to give me guidance and direction.
150. Being a philosopher, scientist, or professor.

Legend: L - If the item describes an activity or event that you would like, enjoy, or find more pleasant than unpleasant.

D - If the item describes an activity or event that you would dislike, reject, or find more unpleasant than pleasant.

151. Having people laugh at my mistakes.
152. Working on tasks so difficult I can hardly do them.
153. Keeping my failures and mistakes to myself.
154. Going to parties where I'm expected to mix with the whole crowd.
155. Annoying people I don't like, just to see what they will do.

156. Leading a well-ordered life with regular hours and an established routine.
157. Planning ahead so that I know every step of a project before I get to it.
158. Avoiding something at which I have once failed.
159. Turning over the leadership of a group to someone who is better for the job than I.
160. Being an official or a leader.

161. Actively supporting a movement to correct a social evil.
162. Letting loose and having a good cry sometimes.
163. Taking frequent rest periods when working on any project.
164. Being the only couple on the dance floor when everyone is watching.
165. Imagining situations in which I am a great hero.

166. Driving fast.
167. Talking about music, theater or other art forms with people who are interested in them.
168. Controlling my emotions rather than expressing myself impulsively.
169. Catching a reflection of myself in a mirror or window.
170. Lending my things to other people.

171. Carrying a good luck charm like a rabbit's foot or a four-leaf clover.
172. Making my bed and putting things away every day before I leave the house.
173. Going to a party or dance with a lively crowd.
174. Managing a store or business enterprise.
175. Seeking to explain the behavior of people who are emotionally disturbed.

176. Going to scientific exhibits.
177. Chewing or popping gum.
178. Reading novels and magazine stories about love.
179. Having others offer their opinions when I have to make a decision.
180. Losing myself in hard thought.

181. Accepting criticism without talking back.
182. Doing something very difficult in order to prove I can do it.
183. Pointing out someone else's mistakes when they point out mine.
184. Having lots of friends who come to stay with us for several days during the year.
185. Playing practical jokes.

186. Doing things a different way every time I do them.
187. Keeping to a regular schedule, even if this sometimes means working when I don't really feel like it.
188. Quitting a project that seems too difficult for me.
189. Listening to older persons tell about how they did things when they were young.
190. Organizing a protest meeting.

191. Getting my friends to change their social, political, or religious beliefs.
192. Yelling with excitement at a ball game, horse race, or other public event.
193. Having something to do every minute of the day.
194. Speaking before a large group.
195. Imagining how it would feel to be rich and famous.

196. Playing rough games in which someone might get hurt.
197. Finding out how different languages have developed, changed, and influenced one another.
198. Letting my reasoning be guided by my feelings.
199. Dressing carefully, being sure that the colors match and the various details are exactly right.
200. Taking care of youngsters.

Legend: L - If the item describes an activity or event that you would like, enjoy, or find more pleasant than unpleasant.

D - If the item describes an activity or event that you would dislike, reject, or find more unpleasant than pleasant.

201. Having a close friend who ignores or makes fun of superstitious beliefs.
202. Shining my shoes and brushing my clothes every day.
203. Giving up whatever I'm doing rather than miss a party or other opportunity for a good time.
204. Fixing light sockets, making curtains, painting things, etc., around the house.
205. Reading stories that try to show what people really think and feel inside themselves.

206. Collecting data and attempting to arrive at general laws about the physical universe.
207. Sketching or painting.
208. Daydreaming about being in love with a particular movie star or entertainer.
209. Having people fuss over me when I'm sick.
210. Engaging in mental activity.

211. Making a fuss when someone seems to be taking advantage of me.
212. Choosing difficult tasks in preference to easy ones.
213. Apologizing when I've done something wrong.
214. Going to the park or beach only at times when no-one else is likely to be there.
215. Questioning the decisions of people who are supposed to be authorities.

216. Eating my meals at the same hour each day.
217. Doing things according to my mood, without following any plan.
218. Doing something over again, just to get it right.
219. Disregarding a supervisor's directions when they seem foolish.
220. Talking someone into doing something I think ought to be done.

221. Trying to improve my community by persuading others to do certain things.
222. Being with people who seem always to be calm, unstirred, or placid.
223. Giving all of my energy to whatever I happen to be doing.
224. Being the center of attention at a party.
225. Setting myself tasks to strengthen my mind, body, and will power.

226. Skiing on steep slopes, climbing high mountains, or exploring narrow underground caves.
227. Learning more about the work of different painters and sculptors.
228. Speaking or acting spontaneously.
229. Imagining the kind of life I would have if I were born at a different time in a different place.
230. Talking over personal problems with someone who is feeling unhappy.

231. Going ahead with something important even though I've just accidentally walked under a ladder, broken a mirror, etc.
232. Keeping my room in perfect order.
233. Being with people who are always joking, laughing, and out for a good time.
234. Being treasurer or business manager for a club or organization.
235. Imagining what it will be like when rocket ships carry people through space.

236. Reading scientific theories about the origin of the earth and other planets.
237. Eating so much I can't take another bite.
238. Listening to my friends talk about their love-life.
239. Receiving advice from the family.
240. Solving puzzles that involve numbers or figures.

241. Taking the part of a servant or waiter in a play.
242. Sacrificing everything else in order to achieve something outstanding.
243. Having my mistakes pointed out to me.
244. Going on a vacation to a place where there are lots of people.
245. Fighting for something I want, rather than trying to get it by asking.

246. Avoiding any kind of routine or regularity.
247. Organizing my work in order to use time efficiently.
248. Avoiding something because I'm not sure I'll be successful at it.
249. Carrying out orders from others with snap and enthusiasm.
250. Directing other people's work.

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D - If the item describes an activity or event that you would dislike, reject, or find more unpleasant than pleasant.

251. Being a foreign ambassador or diplomat.
252. Seeing sad or melodramatic movies.
253. Avoiding things that require intense concentration.
254. Telling jokes or doing tricks to entertain others at a large gathering.
255. Pretending I am a famous movie star.

256. Swimming in rough, deep water.
257. Studying the development of English or American literature.
258. Being guided by my heart rather than by my head.
259. Making my handwriting decorative or unusual.
260. Taking care of someone who is ill.

261. Finding out which days are lucky for me, so I can hold off important things to do until then.
262. Having a special place for everything and seeing that each thing is in its place.
263. Doing something serious with my leisure time instead of just playing around with the crowd.
264. Learning how to raise attractive and healthy plants, flowers, vegetables, etc.
265. Thinking about the meaning of eternity.

266. Reading about how mathematics is used in developing scientific theories, such as explanations of how the planets move around the sun.
267. Walking along a dark street in the rain.
268. Being romantic with someone I love.
269. Having people talk to me about some personal problem of mine.
270. Following through in the development of a theory, even though it has no practical applications.

271. Telling others about the mistakes I have made and the sins I have committed.
272. Picking out some hard task for myself and doing it.
273. Concealing my mistakes from others whenever possible.
274. Inviting a lot of people home for a snack or party.
275. Proving that an instructor or superior is wrong.

276. Staying in the same circle of friends all the time.
277. Striving for precision and clarity in my speech and writing.
278. Giving up on a problem rather than doing it in a way that may be wrong.
279. Having friends who are superior to me in ability.
280. Influencing or controlling the actions of others.

281. Converting or changing the views of others.
282. Being unrestrained and open about my feelings and emotions.
283. Doing things that are fun but require lots of physical exertion.
284. Doing things which will attract attention to me.
285. Thinking about how to become the richest and cleverest financial genius in the world.

286. *Being extremely careful about sports that involve some danger like sailing,* hunting, or camping.
287. Reading editorials or feature articles on major social issues.
288. Making up my mind slowly, after considerable deliberation.
289. Trying out different ways of writing my name, to make it look unusual.
290. Providing companionship and personal care for a very old helpless person.

291. Going to a fortune-teller, palm reader or astrologer for advice on something important.
292. Keeping a calendar or notebook of the things I have done or plan to do.
293. Limiting my pleasures so that I can spend all of my time usefully.
294. Being efficient and successful in practical affairs.
295. Concentrating so hard on a work of art or music that I don't know what's going on around me.

296. Studying rock formations and learning how they developed.
297. Reading in the bathtub.
298. Reading about the love affairs of movie stars and other famous people.
299. Being with someone who always tries to be sympathetic and understanding.
300. Working out solutions to complicated problems, even though the answers may have no apparent, immediate usefulness.

APPENDIX F

AI--ADULT NORMS--MALES AND FEMALES

Activities Index Adult Norms

Scale	Adult Males (N=363) Mean	Adult Males (N=363) SD	Adult Females (N=294) Mean	Adult Females (N=294) SD
1 Aba	3.7521	1.9254	3.3537	2.0745
2 Ach	6.5399	2.4304	4.2653	2.7025
3 Ada	5.7989	2.2158	4.4626	2.4349
4 Aff	6.5923	2.6792	5.8333	3.0432
5 Agg	3.4270	2.1144	2.1259	1.8409
6 Cha	4.8044	2.0403	4.3231	2.3214
7 Cnj	6.8292	2.2875	5.6361	2.5017
8 Ctr	7.0165	2.0677	5.4116	2.3162
9 Dfr	7.4022	2.0377	6.7109	2.3936
10 Dom	5.8650	2.4169	3.4252	2.3732
11 E/A	5.1240	2.7840	4.1599	2.6428
12 Emo	2.7906	1.7218	3.9592	2.0829
13 Eny	7.1295	1.7494	5.8844	2.1445
14 Exh	3.4408	2.5081	2.6327	2.3935
15 F/A	3.8237	2.4967	2.2347	1.8358
16 Har	5.2176	2.4234	7.1769	2.0921
17 Hum	6.2507	2.6877	6.9558	2.5169
18 Imp	4.5289	1.7694	5.1871	2.1921
19 Nar	3.9174	2.3163	4.6633	2.2328
20 Nur	6.1322	2.5765	6.7381	2.1514
21 Obj	8.9421	1.3046	8.2177	1.8221
22 Ord	5.8017	3.1059	6.2517	2.5377
23 Ply	4.1680	2.2061	5.0340	2.2205
24 Pra	7.2534	2.0628	6.1769	2.1983
25 Ref	6.1433	2.3558	5.5782	2.2006
26 Sci	6.8788	2.9018	4.3980	2.9706
27 Sen	3.8733	1.8721	3.9286	1.6898
28 Sex	3.5950	2.4447	4.5748	2.5806
29 Sup	5.7273	2.0968	5.9932	2.0237
30 Und	7.2920	2.3467	6.0714	2.3105
Factors				
1 S/Asan	18.2534	7.8450	12.4524	7.2377
2 Aud/Tim	18.9118	6.4729	11.5816	5.3221
3 In/Int	26.5647	7.8851	23.0034	7.6862
4 Motiv.	27.9780	6.5803	21.6327	6.6169
5 Ap/Int	19.9339	6.0184	16.8265	5.2606
6 Order	23.2975	6.3805	22.3776	6.3725
7 Submis.	23.0854	6.2033	21.2653	6.4774
8 Close.	22.8567	6.2902	24.0170	5.9227
9 Sens.	11.3857	5.3029	13.1667	5.1807
10 Frnd.	10.7603	3.8762	10.8673	4.4408
11 Exp/Con	14.3554	5.8270	16.3537	6.6079
12 Ego/Dif	8.7989	4.6899	8.6803	4.2849
Areas				
1 Intell. Needs	111.6419	27.4229	85.4966	24.0351
2 Dependency	157.1074	20.7187	157.8707	20.1769
3 Emo.Express.	86.4105	25.9415	85.5374	25.8053
4 Educability	120.8595	24.7271	105.1054	21.2523

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